TEST REPORT ON COARSE AGGREGATES

Date. :10-01-2023

Client Name : Executive Engineer, Bytarayanapura Division,No 2152/20,Defence Colony,Sahakara Nagara,Bangalore-92

***Contractor Name** : M/s Sri A G Narayanaswamy, no 13 Venkateshwara Layout, Horamavu, Bengaluru-560043

Project Name : Improvements to Roads and Drains at MCEHS Layout 1st and 2nd Phase, Sampigehalli, Chokkanahalli, Balaji Krupa Layout, Basavalingappa Nagara, Central Excise Layout, Bellahalli and Kattigenahalli in Ward no 05 and Kaveri Nagara and Shiridi Sai Nagara in Ward no: 06 Bytarayanapura Sub Division.

Letter Reference BBMP/EE/BTP/WO/80/2022-23, Dated:22-12-2022

PMC Name : Shiprama Consulting Engineers

Technical Reference : IS 2386 (Part-1)- 1963 RA 2016

Material description : 20mm Coarse Aggregates

Date of Reciept of Sample :10-01-2023

Date of testing :10-01-2023

TEST RESULTS

Total Wt. of Aggregates in gms 5000

Sieve Size in mm	Weight retained (gms)	Cumulative weight retained (gms)	Percentage Cumulative weight retained (%)	Percentage Passing (%)	Requirements as per IS 383:2021
40	0	0	0	100	100
20	200	200	4.00	96.00	95-100
10	2831	3031	60.62	39.38	25-55
4.75	1712	4743	94.86	5.14	0-10

Remarks : The above tested Sample Confirms as per IS Specifications.

Notes:-

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TEST REPORT ON COARSE AGGREGATES

Date.	:10-1-2023
Client Name	: Executive Engineer, Bytarayanapura Division,No 2152/20,Defence Colony,Sahakara Nagara,Bangalore-92
***Contractor Name**	: M/s Sri A G Narayanaswamy, no 13 Venkateshwara Layout, Horamavu, Bengaluru-560043
Project Name	: Improvements to Roads and Drains at MCEHS Layout 1st and 2nd Phase, Sampigehalli, Chokkanahalli, Balaji Krupa Layout, Basavalingappa Nagara, Central Excise Layout, Bellahalli and Kattigenahalli in Ward no 05 and Kaveri Nagara and Shiridi Sai Nagara in Ward no: 06 Bytarayanapura Sub Division.
Letter Reference	BBMP/EE/BTP/WO/80/2022-23, Dated:22-12-2022
PMC Name	: Shiprama Consulting Engineers
Technical Reference	: IS 2386 (Part-1)- 1963 RA 2016
Material description	: 40mm Coarse Aggregates
Date of Reciept of Sample	:10-1-2023
Date of testing	:10-1-2023

TEST RESULTS

Total Wt. of Aggregates in gms 15000

Sieve Size in mm	Weight retained (gms)	Cumulative weight retained (gms)	Percentage Cumulative weight retained (%)	Percentage Passing (%)	Requirements as per IS 383:2021
80	0	0	0	100	100
40	515	515	3.43	96.57	95-100
20	8160	8675	57.83	42.17	30-70
10	3255	11930	79.53	20.47	10-35
4.75	2450	14380	95.87	4.13	0-5

Remarks : The above tested Sample Confirms as per IS Specifications.

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TEST REPORT ON CEMENT

Date.	:10-1-2023
Client Name	: Executive Engineer, Bytarayanapura Division,No 2152/20,Defence Colony,Shankara Nagara,Bangalore-92
***Contractor Name**	: M/s Sri A G Narayanaswamy, no 13 Venkateshwara Layout, Horamavu, Ber 560043
Project Name	: Improvements to Roads and Drains at MCEHS Layout 1st and 2nd Phase, Sampigehalli, Chokkanahalli, Balaji Krupa Layout, Basavalingappa Nagara, (Excise Layout, Bellahalli and Kattigenahalli in Ward no 05 and Kaveri Nagara Shirdi Sai Nagara in Ward no: 06 Bytarayanapura Sub Division.
Letter Reference	BBMP/EE/BTP/WO/80/2022-23, Dated:22-12-2022
PMC Name	: Shiprama Consulting Engineers
Technical Reference	: IS-4031 (Part -1, 3, 4, 5 & 6) 1988 (RA-2014)
Material description	: Birla Super OPC 53 grade Cement
Date of Reciept of Sample	:10-1-2023
Date of testing	:10-1-2023

TEST RESULTS

Sl.No	Physical Parameters	Test Results	Requirements as per IS: 269-2020
1	Consistancy	31.00%	-
2	Initial Setting Time	140 minutes	Not Less than 30 Minutes
3	Final Setting Time	320 minutes	Not More than 600 Minutes
4	Soundness by Le - Chatelier's Method	2 mm	Not more than 10mm
5	Fineness by Dry Sieving Method	5.50%	Not more than 10%

Notes:-

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TEST REPORT ON FINE AGGREGATES

Date. :10-1-2023

Client Name : Executive Engineer, Bytarayanapura Division,No 2152/20,Defence Colony,Sahakara Nagara,Bangalore-92

***Contractor Name** : M/s Sri A G Narayanaswamy, no 13 Venkateshwara Layout, Horamavu, Bengaluru-560043

Project Name : Improvements to Roads and Drains at MCEHS Layout 1st and 2nd Phase, Sampigehalli, Chokkanahalli, Balaji Krupa Layout, Basavalingappa Nagara, Central Excise Layout, Bellahalli and Kattigenahalli in Ward no 05 and Kaveri Nagara and Shiridi Sai Nagara in Ward no: 06 Bytarayanapura Sub Division.

Letter Reference BBMP/EE/BTP/WO/80/2022-23, Dated:22-12-2022

PMC Name : Shiprama Consulting Engineers

Technical Reference : IS 2386 (Part-1)- 1963 RA 2016

Material description : Sand

Date of Reciept of Sample :10-1-2023

Date of testing :10-1-2023

TEST RESULTS

Total Wt. of Aggregates in gms 1500

Sieve Size in mm	Weight retained (gms)	Cumulative weight retained (gms)	Percentage Cumulative weight retained (%)	Percentage Passing (%)	Spec.Limits For Zone-II
10	0	0	0	100	100
4.75	105	105	7.00	93.00	90-100
2.36	180	285	19.00	81.00	75-100
1.18	345	630	42.00	58.00	55-90
600 Micron	275	905	60.33	39.67	35-59
300 Micron	291	1196	79.73	20.27	8-30
150 Micron	160	1356	90.40	9.60	0-10

Remarks : The above tested Sample Confirms as per IS Specifications.

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TEST REPORT ON STEEL

Date. :25-1-2023

Client Name : Executive Engineer, Bytarayanapura Division,No 2152/20,Defence Colony,Sahakara Nagara,Bangalore-92

Contractor Name : M/s Sri A G Narayanaswamy, no 13 Venkateshwara Layout, Horamavu, E 560043

Project Name : Improvements to Roads and Drains at MCEHS Layout 1st and 2nd Phase, Sampig Chokkanahalli, Balaji Krupa Layout, Basavalingappa Nagara, Central Excise I Bellahalli and Kattigenahalli in Ward no 05 and Kaveri Nagara and Shiridi Sai N Ward no: 06 Bytarayanapura Sub Division.

Letter Reference BBMP/EE/BTP/WO/80/2022-23, Dated:22-12-2022

PMC Name : Shiprama Consulting Engineers

Technical Reference : IS- 1786 :2008 IS 1608:2005, IS 1599:1985 (RA-2018)

Material description : Steel (8mm, 10mm, dia TMT Bars "Fe 500") For Drain

Date of Reciept of Sample :25-1-2023

Date of testing :25-1-2023

TEST RESULTS

Sl.No	Nominal size (dia in mm)	Mass per metre (kg/metre)	TENSILE STRENGTH		
			0.20 % proof stress/ yield stress ($N/mm^{2)}$	Tensile strength ($N/mm^{2)}$	Elongation, percent on gauge length
1	8	0.408	510	559	15
2	10	0.620	529	573	17

Remarks : The above tested Sample Confirms as per IS Specifications.

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TEST REPORT ON PRECAST SLAB

Date. :20-2-2023

Client Name : Executive Engineer, Bytarayanapura Division,No 2152/20,Defence Colony,Sahakara Nagara,Bangalore-92

***Contractor Name** : M/s Sri A G Narayanaswamy, no 13 Venkateshwara Layout, Horamavu, Bengaluru-560043

Project Name : Improvements to Roads and Drains at MCEHS Layout 1st and 2nd Phase, Sampigehalli, Chokkanahalli, Balaji Krupa Layout, Basavalingappa Nagara, Central Excise Layout, Bellahalli and Kattigenahalli in Ward no 05 and Kaveri Nagara and Shiridi Sai Nagara in Ward no: 06 Bytarayanapura Sub Division.

Letter Reference :BBMP/EE/BTP/WO/80/2022-23, Dated:22-12-2022

PMC Name : Shiprama Consulting Engineers

Technical Reference : IS 516 - 1959 RA 2018

Material description : Precast Slab 100mm thick

Date of Reciept of Sample :20-2-2023

Date of testing : 20-2-2023

TEST RESULTS

Sl. No.	Dia of Core D (mm)	Height of Core H (mm)	Core Wt (Kg)	Density of Core (kg / m^3)	H / D	Correction factor (Based on H/D)	Failure Load (kN)	Core Strength (N/mm^2)	Correction Factor for the Dia. (Strength of the Core x 1.08)	Corrected Cylinder Compressive Strength (N/mm^2)	Equivalent Cube Compressive Strength (N/mm^2)
1	50.00	85.50	0.416	2477.977	1.71	0.960	28.63	14.58	15.02	14.40	18.00
2	50.00	85.00	0.417	2498.545	1.70	0.960	26.88	13.69	14.10	13.50	16.88
3	50.00	80.00	0.395	2514.648	1.60	0.960	27.86	14.19	14.61	13.56	16.95

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TEST REPORT ON ATTERBERG LIMITS OF WET MIX MACADAM

Date.	:24-1-2023
Client Name	: Executive Engineer, Bytarayanapura Division,No 2152/20,Defence Colony,Sahakara Nagara,Bangalore-92
***Contractor Name**	: M/s Sri A G Narayanaswamy, no 13 Venkateshwara Layout, Horamavu, Bengaluru-560043
Project Name	: Improvements to Roads and Drains at MCEHS Layout 1st and 2nd Phase, Sampigehalli, Chokkanahalli, Balaji Krupa Layout, Basavalingappa Nagara, Central Excise Layout, Bellahalli and Kattigenahalli in Ward no 05 and Kaveri Nagara and Shiridi Sai Nagara in Ward no: 06 Bytarayanapura Sub Division.
Letter Reference	:BBMP/EE/BTP/WO/80/2022-23, Dated:22-12-2022
PMC Name	: Shiprama Consulting Engineers
Locaction	:Prashanthi Nagar
Technical Reference	: IS:2720 (part 5)-1985 RA 2015, MORTH Table 400-13
Material description	: Wet Mix Macadam
Date of Reciept of	:24-1-2023
Date of testing	:24-1-2023

TEST RESULTS

Sl. No.	Particulars	Test Results	Standards as per Specifications As per MORTH Table 400-13
1	Liquid Limit	23.90	-
2	Plasticity Index, %	Non Plastic	6.0% Maximum.

Remarks: The above tested sample satisfies MORTH Specifications as per Table 400-13

Notes:-

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TEST REPORT ON ATTERBERG LIMITS OF WET MIX MACADAM

Date. :24-1-2023

Client Name : Executive Engineer, Bytarayanapura Division,No 2152/20,Defence Colony,Sahakara Nagara,Bangalore-92

***Contractor Name** : M/s Sri A G Narayanaswamy, no 13 Venkateshwara Layout, Horamavu, Bengaluru-560043

Project Name : Improvements to Roads and Drains at MCEHS Layout 1st and 2nd Phase, Sampigehalli, Chokkanahalli, Balaji Krupa Layout, Basavalingappa Nagara, Central Excise Layout, Bellahalli and Kattigenahalli in Ward no 05 and Kaveri Nagara and Shiridi Sai Nagara in Ward no: 06 Bytarayanapura Sub Division.

Letter Reference :BBMP/EE/BTP/WO/80/2022-23, Dated:22-12-2022

PMC Name : Shiprama Consulting Engineers

Locaction :Prashanthi Nagar

Technical Reference : IS:2720 (part 5)-1985 RA 2015, MORTH Table 400-13

Material description : Wet Mix Macadam

Date of Reciept of :24-1-2023

Date of testing :24-1-2023

TEST RESULTS

Sl. No.	Particulars	Test Results	Standards as per Specifications As per MORTH Table 400-13
1	Liquid Limit	24.20	-
2	Plasticity Index, %	Non Plastic	6.0% Maximum.

Remarks: The above tested sample satisfies MORTH Specifications as per Table 400-13

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TEST REPORT ON ATTERBERG LIMITS OF WET MIX MACADAM

Date. :24-1-2023

Client Name : Executive Engineer, Bytarayanapura Division,No 2152/20,Defence Colony,Sahakara Nagara,Bangalore-92

***Contractor Name** : M/s Sri A G Narayanaswamy, no 13 Venkateshwara Layout, Horamavu, Bengaluru-560043

Project Name : Improvements to Roads and Drains at MCEHS Layout 1st and 2nd Phase, Sampigehalli, Chokkanahalli, Balaji Krupa Layout, Basavalingappa Nagara, Central Excise Layout, Bellahalli and Kattigenahalli in Ward no 05 and Kaveri Nagara and Shiridi Sai Nagara in Ward no: 06 Bytarayanapura Sub Division.

Letter Reference :BBMP/EE/BTP/WO/80/2022-23, Dated:22-12-2022

PMC Name : Shiprama Consulting Engineers

Locaction :Prashanthi Nagar

Technical Reference : IS:2720 (part 5)-1985 RA 2015, MORTH Table 400-13

Material description : Wet Mix Macadam

Date of Reciept of :24-1-2023

Date of testing :24-1-2023

TEST RESULTS

Sl. No.	Particulars	Test Results	Standards as per Specifications As per MORTH Table 400-13
1	Liquid Limit	23.50	-
2	Plasticity Index, %	Non Plastic	6.0% Maximum.

Remarks: The above tested sample satisfies MORTH Specifications as per Table 400-13

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TEST REPORT ON ATTERBERG LIMITS OF WET MIX MACADAM

Date. :24-1-2023

Client Name : Executive Engineer, Bytarayanapura Division,No 2152/20,Defence Colony,Sahakara Nagara,Bangalore-92

***Contractor Name** : M/s Sri A G Narayanaswamy, no 13 Venkateshwara Layout, Horamavu, Bengaluru-560043

Project Name : Improvements to Roads and Drains at MCEHS Layout 1st and 2nd Phase, Sampigehalli, Chokkanahalli, Balaji Krupa Layout, Basavalingappa Nagara, Central Excise Layout, Bellahalli and Kattigenahalli in Ward no 05 and Kaveri Nagara and Shiridi Sai Nagara in Ward no: 06 Bytarayanapura Sub Division.

Letter Reference :BBMP/EE/BTP/WO/80/2022-23, Dated:22-12-2022

PMC Name : Shiprama Consulting Engineers

Locaction :Prashanthi Nagar

Technical Reference : IS:2720 (part 5)-1985 RA 2015, MORTH Table 400-13

Material description : Wet Mix Macadam

Date of Reciept of :24-1-2023

Date of testing :24-1-2023

TEST RESULTS

Sl. No.	Particulars	Test Results	Standards as per Specifications As per MORTH Table 400-13
1	Liquid Limit	23.40	-
2	Plasticity Index, %	Non Plastic	6.0% Maximum.

Remarks: The above tested sample satisfies MORTH Specifications as per Table 400-13

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TEST REPORT ON ATTERBERG LIMITS OF WET MIX MACADAM

Date. :26-1-2023

Client Name : Executive Engineer, Bytarayanapura Division,No 2152/20,Defence Colony,Sahakara Nagara,Bangalore-92

***Contractor Name** : M/s Sri A G Narayanaswamy, no 13 Venkateshwara Layout, Horamavu, Bengaluru-560043

Project Name : Improvements to Roads and Drains at MCEHS Layout 1st and 2nd Phase, Sampigehalli, Chokkanahalli, Balaji Krupa Layout, Basavalingappa Nagara, Central Excise Layout, Bellahalli and Kattigenahalli in Ward no 05 and Kaveri Nagara and Shiridi Sai Nagara in Ward no: 06 Bytarayanapura Sub Division.

Letter Reference :BBMP/EE/BTP/WO/80/2022-23, Dated:22-12-2022

PMC Name : Shiprama Consulting Engineers

Locaction :Kaveri Layout 1st Cross

Technical Reference : IS:2720 (part 5)-1985 RA 2015, MORTH Table 400-13

Material description : Wet Mix Macadam

Date of Reciept of :26-1-2023

Date of testing :26-1-2023

TEST RESULTS

Sl. No.	Particulars	Test Results	Standards as per Specifications As per MORTH Table 400-13
1	Liquid Limit	23.20	-
2	Plasticity Index, %	Non Plastic	6.0% Maximum.

Remarks: The above tested sample satisfies MORTH Specifications as per Table 400-13

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TEST REPORT ON ATTERBERG LIMITS OF WET MIX MACADAM

Date.	:26-1-2023
Client Name	: Executive Engineer, Bytarayanapura Division,No 2152/20,Defence Colony,Sahakara Nagara,Bangalore-92
***Contractor Name**	: M/s Sri A G Narayanaswamy, no 13 Venkateshwara Layout, Horamavu, Bengaluru-560043
Project Name	: Improvements to Roads and Drains at MCEHS Layout 1st and 2nd Phase, Sampigehalli, Chokkanahalli, Balaji Krupa Layout, Basavalingappa Nagara, Central Excise Layout, Bellahalli and Kattigenahalli in Ward no 05 and Kaveri Nagara and Shiridi Sai Nagara in Ward no: 06 Bytarayanapura Sub Division.
Letter Reference	:BBMP/EE/BTP/WO/80/2022-23, Dated:22-12-2022
PMC Name	: Shiprama Consulting Engineers
Locaction	:Kaveri Layout 1st Cross
Technical Reference	: IS:2720 (part 5)-1985 RA 2015, MORTH Table 400-13
Material description	: Wet Mix Macadam
Date of Reciept of	:26-1-2023
Date of testing	:26-1-2023

TEST RESULTS

Sl. No.	Particulars	Test Results	Standards as per Specifications As per MORTH Table 400-13
1	Liquid Limit	24.10	-
2	Plasticity Index, %	Non Plastic	6.0% Maximum.

Remarks: The above tested sample satisfies MORTH Specifications as per Table 400-13

Notes:-

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TEST REPORT ON ATTERBERG LIMITS OF WET MIX MACADAM

Date. :26-1-2023

Client Name : Executive Engineer, Bytarayanapura Division,No 2152/20,Defence Colony,Sahakara Nagara,Bangalore-92

***Contractor Name** : M/s Sri A G Narayanaswamy, no 13 Venkateshwara Layout, Horamavu, Bengaluru-560043

Project Name : Improvements to Roads and Drains at MCEHS Layout 1st and 2nd Phase, Sampigehalli, Chokkanahalli, Balaji Krupa Layout, Basavalingappa Nagara, Central Excise Layout, Bellahalli and Kattigenahalli in Ward no 05 and Kaveri Nagara and Shiridi Sai Nagara in Ward no: 06 Bytarayanapura Sub Division.

Letter Reference :BBMP/EE/BTP/WO/80/2022-23, Dated:22-12-2022

PMC Name : Shiprama Consulting Engineers

Locaction :Kaveri Layout 1st Cross

Technical Reference : IS:2720 (part 5)-1985 RA 2015, MORTH Table 400-13

Material description : Wet Mix Macadam

Date of Reciept of :26-1-2023

Date of testing :26-1-2023

TEST RESULTS

Sl. No.	Particulars	Test Results	Standards as per Specifications As per MORTH Table 400-13
1	Liquid Limit	24.75	-
2	Plasticity Index, %	Non Plastic	6.0% Maximum.

Remarks: The above tested sample satisfies MORTH Specifications as per Table 400-13

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TEST REPORT ON ATTERBERG LIMITS OF WET MIX MACADAM

Date.	:26-1-2023
Client Name	: Executive Engineer, Bytarayanapura Division,No 2152/20,Defence Colony,Sahakara Nagara,Bangalore-92
***Contractor Name**	: M/s Sri A G Narayanaswamy, no 13 Venkateshwara Layout, Horamavu, Bengaluru-560043
Project Name	: Improvements to Roads and Drains at MCEHS Layout 1st and 2nd Phase, Sampigehalli, Chokkanahalli, Balaji Krupa Layout, Basavalingappa Nagara, Central Excise Layout, Bellahalli and Kattigenahalli in Ward no 05 and Kaveri Nagara and Shiridi Sai Nagara in Ward no: 06 Bytarayanapura Sub Division.
Letter Reference	:BBMP/EE/BTP/WO/80/2022-23, Dated:22-12-2022
PMC Name	: Shiprama Consulting Engineers
Locaction	:Kaveri Layout 1st Cross
Technical Reference	: IS:2720 (part 5)-1985 RA 2015, MORTH Table 400-13
Material description	: Wet Mix Macadam
Date of Reciept of	:26-1-2023
Date of testing	:26-1-2023

TEST RESULTS

Sl. No.	Particulars	Test Results	Standards as per Specifications As per MORTH Table 400-13
1	Liquid Limit	23.15	-
2	Plasticity Index, %	Non Plastic	6.0% Maximum.

Remarks: The above tested sample satisfies MORTH Specifications as per Table 400-13

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TEST REPORT ON ATTERBERG LIMITS OF WET MIX MACADAM

Date. :31-1-2023

Client Name : Executive Engineer, Bytarayanapura Division,No 2152/20,Defence Colony,Sahakara Nagara,Bangalore-92

***Contractor Name** : M/s Sri A G Narayanaswamy, no 13 Venkateshwara Layout, Horamavu, Bengaluru-560043

Project Name : Improvements to Roads and Drains at MCEHS Layout 1st and 2nd Phase, Sampigehalli, Chokkanahalli, Balaji Krupa Layout, Basavalingappa Nagara, Central Excise Layout, Bellahalli and Kattigenahalli in Ward no 05 and Kaveri Nagara and Shiridi Sai Nagara in Ward no: 06 Bytarayanapura Sub Division.

Letter Reference :BBMP/EE/BTP/WO/80/2022-23, Dated:22-12-2022
PMC Name : Shiprama Consulting Engineers
Locaction :Shiradi Sai Nagar 3rd Cross
Technical Reference : IS:2720 (part 5)-1985 RA 2015, MORTH Table 400-13
Material description : Wet Mix Macadam
Date of Reciept of :31-1-2023
Date of testing :31-1-2023

TEST RESULTS

Sl. No.	Particulars	Test Results	Standards as per Specifications As per MORTH Table 400-13
1	Liquid Limit	24.35	-
2	Plasticity Index, %	Non Plastic	6.0% Maximum.

Remarks: The above tested sample satisfies MORTH Specifications as per Table 400-13

Notes:-

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Bengaluru-560091.Mob:9886212878 Ph.: 080 29554444 | Email: shiprama888@gmail.com |

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TEST REPORT ON ATTERBERG LIMITS OF WET MIX MACADAM

Date. :31-1-2023

Client Name : Executive Engineer, Bytarayanapura Division,No 2152/20,Defence Colony,Sahakara Nagara,Bangalore-92

***Contractor Name** : M/s Sri A G Narayanaswamy, no 13 Venkateshwara Layout, Horamavu, Bengaluru-560043

Project Name : Improvements to Roads and Drains at MCEHS Layout 1st and 2nd Phase, Sampigehalli, Chokkanahalli, Balaji Krupa Layout, Basavalingappa Nagara, Central Excise Layout, Bellahalli and Kattigenahalli in Ward no 05 and Kaveri Nagara and Shiridi Sai Nagara in Ward no: 06 Bytarayanapura Sub Division.

Letter Reference :BBMP/EE/BTP/WO/80/2022-23, Dated:22-12-2022

PMC Name : Shiprama Consulting Engineers

Locaction :Shiradi Sai Nagar 3rd Cross

Technical Reference : IS:2720 (part 5)-1985 RA 2015, MORTH Table 400-13

Material description : Wet Mix Macadam

Date of Reciept of :31-1-2023

Date of testing :31-1-2023

TEST RESULTS

Sl. No.	Particulars	Test Results	Standards as per Specifications As per MORTH Table 400-13
1	Liquid Limit	23.95	-
2	Plasticity Index, %	Non Plastic	6.0% Maximum.

Remarks: The above tested sample satisfies MORTH Specifications as per Table 400-13

Notes:-

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ಬಿ.ಬಿ.ಎಂ.ಪಿ. ಬ್ಯಾಟರಾಯನಪುರ ಉಪ ವಿಭಾಗ

ಸಹಾಯಕ ಕಾರ್ಯಪಾಲಕ ಅಭಿಯಂತರರು
ಬ್ಯಾಟರಾಯನಪುರ ಉಪ ವಿಭಾಗ
ಬಿ.ಬಿ.ಎಂ.ಪಿ, ಬೆಂಗಳೂರು-24

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TEST REPORT ON ATTERBERG LIMITS OF WET MIX MACADAM

Date. :31-1-2023

Client Name : Executive Engineer, Bytarayanapura Division,No 2152/20,Defence Colony,Sahakara Nagara,Bangalore-92

***Contractor Name** : M/s Sri A G Narayanaswamy, no 13 Venkateshwara Layout, Horamavu, Bengaluru-560043

Project Name : Improvements to Roads and Drains at MCEHS Layout 1st and 2nd Phase, Sampigehalli, Chokkanahalli, Balaji Krupa Layout, Basavalingappa Nagara, Central Excise Layout, Bellahalli and Kattigenahalli in Ward no 05 and Kaveri Nagara and Shiridi Sai Nagara in Ward no: 06 Bytarayanapura Sub Division.

Letter Reference :BBMP/EE/BTP/WO/80/2022-23, Dated:22-12-2022

PMC Name : Shiprama Consulting Engineers

Locaction :Shiradi Sai Nagar 3rd Cross

Technical Reference : IS:2720 (part 5)-1985 RA 2015, MORTH Table 400-13

Material description : Wet Mix Macadam

Date of Reciept of :31-1-2023

Date of testing :31-1-2023

TEST RESULTS

Sl. No.	Particulars	Test Results	Standards as per Specifications As per MORTH Table 400-13
1	Liquid Limit	24.60	-
2	Plasticity Index, %	Non Plastic	6.0% Maximum.

Remarks: The above tested sample satisfies MORTH Specifications as per Table 400-13

Notes:-

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ಸಹಾಯಕ ಕಾರ್ಯನಿರ್ವಾಹಕ ಅಭಿಯಂತರರು
ಬ್ಯಾಟರಾಯನಪುರ ಉಪ ವಿಭಾಗ
ಬಿ.ಬಿ.ಎಂ.ಪಿ, ಬೆಂಗಳೂರು-24

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TEST REPORT ON ATTERBERG LIMITS OF WET MIX MACADAM

Date. :31-1-2023

Client Name : Executive Engineer, Bytarayanapura Division,No 2152/20,Defence Colony,Sahakara Nagara,Bangalore-92

***Contractor Name** : M/s Sri A G Narayanaswamy, no 13 Venkateshwara Layout, Horamavu, Bengaluru-560043

Project Name : Improvements to Roads and Drains at MCEHS Layout 1st and 2nd Phase, Sampigehalli, Chokkanahalli, Balaji Krupa Layout, Basavalingappa Nagara, Central Excise Layout, Bellahalli and Kattigenahalli in Ward no 05 and Kaveri Nagara and Shiridi Sai Nagara in Ward no: 06 Bytarayanapura Sub Division.

Letter Reference :BBMP/EE/BTP/WO/80/2022-23, Dated:22-12-2022

PMC Name : Shiprama Consulting Engineers

Locaction :Shiradi Sai Nagar 3rd Cross

Technical Reference : IS:2720 (part 5)-1985 RA 2015, MORTH Table 400-13

Material description : Wet Mix Macadam

Date of Reciept of :31-1-2023

Date of testing :31-1-2023

TEST RESULTS

Sl. No.	Particulars	Test Results	Standards as per Specifications As per MORTH Table 400-13
1	Liquid Limit	24.00	-
2	Plasticity Index, %	Non Plastic	6.0% Maximum.

Remarks: The above tested sample satisfies MORTH Specifications as per Table 400-13

Notes:-

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ಬಿ.ಬಿ.ಎಂ.ಪಿ ಬ್ಯಾಟರಾಯನಪುರ ಉಪ ವಿಭಾಗ

ಸಹಾಯಕ ಕಾರ್ಯಪಾಲಕ ಅಭಿಯಂತರರು
ಬ್ಯಾಟರಾಯನಪುರ ಉಪ ವಿಭಾಗ
ಬಿ.ಬಿ.ಎಂ.ಪಿ. ಬೆಂಗಳೂರು-24

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TEST REPORT ON GRADATION OF WET MIX MACADAM

Date.	:24-1-2023
Client Name	: Executive Engineer, Bytarayanapura Division,No 2152/20,Defence Colony,Shankara Nagara,Bangalore-92
***Contractor Name**	: M/s Sri A G Narayanaswamy, no 13 Venkateshwara Layout, Horamavu, Bengaluru-560043
Project Name	: Improvements to Roads and Drains at MCEHS Layout 1st and 2nd Phase, Sampigehalli, Chokkanahalli, Balaji Krupa Layout, Basavalingappa Nagara, Central Excise Layout, Bellahalli and Kattigenahalli in Ward no 05 and Kaveri Nagara and Shiridi Sai Nagara in Ward no: 06 Bytarayanapura Sub Division.
Letter Reference	:BBMP/EE/BTP/WO/80/2022-23, Dated:22-12-2022
PMC Name	: Shiprama Consulting Engineers
Locaction	:Prashanthi Nagar
Technical Reference	: IS 2720 (Part-4)- 1985 RA 2015, MORTH Table 400-13
Material description	: Wet Mix Macadam
Date of Reciept of	:24-1-2023
Date of testing	:24-1-2023

TEST RESULTS

Total Wt. of Aggregates in gms 17125

Sieve Size in mm	Weight retained (gms)	Cumulative weight retained (gms)	Percentage Cumulative weight retained (%)	Percentage Passing (%)	Specified Limits as per MORTH Table 400-13
53	0	0	0	100	100
45	522	522	3.05	96.95	95-100
22.4	3532	4054	23.67	76.33	60-80
11.2	3154	7208	42.09	57.91	40-60
4.75	3612	10820	63.18	36.82	25-40
2.36	2848	13668	79.81	20.19	15-30
0.6	1530	15198	88.75	11.25	8-22
0.075	1641	16839	98.33	1.67	0-5

Remarks: The above tested sample satisfies MORTH Specifications as per Table 400-13

Notes:-

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TEST REPORT ON GRADATION OF WET MIX MACADAM

Date. :24-1-2023

Client Name : Executive Engineer, Bytarayanapura Division,No 2152/20,Defence Colony,Shankara Nagara,Bangalore-92

***Contractor Name** : M/s Sri A G Narayanaswamy, no 13 Venkateshwara Layout, Horamavu, Bengaluru-560043

Project Name : Improvements to Roads and Drains at MCEHS Layout 1st and 2nd Phase, Sampigehalli, Chokkanahalli, Balaji Krupa Layout, Basavalingappa Nagara, Central Excise Layout, Bellahalli and Kattigenahalli in Ward no 05 and Kaveri Nagara and Shiridi Sai Nagara in Ward no: 06 Bytarayanapura Sub Division.

Letter Reference :BBMP/EE/BTP/WO/80/2022-23, Dated:22-12-2022
PMC Name : Shiprama Consulting Engineers
Locaction :Prashanthi Nagar
Technical Reference : IS 2720 (Part-4)- 1985 RA 2015, MORTH Table 400-13
Material description : Wet Mix Macadam
Date of Reciept of :24-1-2023
Date of testing :24-1-2023

TEST RESULTS

Total Wt. of Aggregates in gms 17125

Sieve Size in mm	Weight retained (gms)	Cumulative weight retained (gms)	Percentage Cumulative weight retained (%)	Percentage Passing (%)	Specified Limits as per MORTH Table 400-13
53	0	0	0	100	100
45	515	515	3.01	96.99	95-100
22.4	3576	4091	23.89	76.11	60-80
11.2	3183	7274	42.48	57.52	40-60
4.75	3662	10936	63.86	36.14	25-40
2.36	2914	13850	80.88	19.12	15-30
0.6	1641	15491	90.46	9.54	8-22
0.075	1404	16895	98.66	1.34	0-5

Remarks: The above tested sample satisfies MORTH Specifications as per Table 400-13

Notes:-

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TEST REPORT ON GRADATION OF WET MIX MACADAM

Date. :24-1-2023

Client Name : Executive Engineer, Bytarayanapura Division,No 2152/20,Defence Colony,Shankara Nagara,Bangalore-92

***Contractor Name** : M/s Sri A G Narayanaswamy, no 13 Venkateshwara Layout, Horamavu, Bengaluru-560043

Project Name : Improvements to Roads and Drains at MCEHS Layout 1st and 2nd Phase, Sampigehalli, Chokkanahalli, Balaji Krupa Layout, Basavalingappa Nagara, Central Excise Layout, Bellahalli and Kattigenahalli in Ward no 05 and Kaveri Nagara and Shiridi Sai Nagara in Ward no: 06 Bytarayanapura Sub Division.

Letter Reference :BBMP/EE/BTP/WO/80/2022-23, Dated:22-12-2022

PMC Name : Shiprama Consulting Engineers

Locaction :Prashanthi Nagar

Technical Reference : IS 2720 (Part-4)- 1985 RA 2015, MORTH Table 400-13

Material description : Wet Mix Macadam

Date of Reciept of :24-1-2023

Date of testing :24-1-2023

TEST RESULTS

Total Wt. of Aggregates in gms 17125

Sieve Size in mm	Weight retained (gms)	Cumulative weight retained (gms)	Percentage Cumulative weight retained (%)	Percentage Passing (%)	Specified Limits as per MORTH Table 400-13
53	0	0	0	100	100
45	500	500	2.92	97.08	95-100
22.4	3653	4153	24.25	75.75	60-80
11.2	3356	7509	43.85	56.15	40-60
4.75	3690	11199	65.40	34.60	25-40
2.36	2850	14049	82.04	17.96	15-30
0.6	1000	15049	87.88	12.12	8-22
0.075	1300	16349	95.47	4.53	0-5

Remarks: The above tested sample satisfies MORTH Specifications as per Table 400-13

Notes:-

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TEST REPORT ON GRADATION OF WET MIX MACADAM

Date. :24-1-2023

Client Name : Executive Engineer, Bytarayanapura Division,No 2152/20,Defence Colony,Shankara Nagara,Bangalore-92

***Contractor Name** : M/s Sri A G Narayanaswamy, no 13 Venkateshwara Layout, Horamavu, Bengaluru-560043

Project Name : Improvements to Roads and Drains at MCEHS Layout 1st and 2nd Phase, Sampigehalli, Chokkanahalli, Balaji Krupa Layout, Basavalingappa Nagara, Central Excise Layout, Bellahalli and Kattigenahalli in Ward no 05 and Kaveri Nagara and Shiridi Sai Nagara in Ward no: 06 Bytarayanapura Sub Division.

Letter Reference :BBMP/EE/BTP/WO/80/2022-23, Dated:22-12-2022

PMC Name : Shiprama Consulting Engineers

Locaction :Prashanthi Nagar

Technical Reference : IS 2720 (Part-4)- 1985 RA 2015, MORTH Table 400-13

Material description : Wet Mix Macadam

Date of Reciept of :24-1-2023

Date of testing :24-1-2023

TEST RESULTS

Total Wt. of Aggregates in gms 17125

Sieve Size in mm	Weight retained (gms)	Cumulative weight retained (gms)	Percentage Cumulative weight retained (%)	Percentage Passing (%)	Specified Limits as per MORTH Table 400-13
53	0	0	0	100	100
45	521	521	3.04	96.96	95-100
22.4	3550	4071	23.77	76.23	60-80
11.2	3152	7223	42.18	57.82	40-60
4.75	3435	10658	62.24	37.76	25-40
2.36	2700	13358	78.00	22.00	15-30
0.6	1499	14857	86.76	13.24	8-22
0.075	1540	16397	95.75	4.25	0-5

Remarks: The above tested sample satisfies MORTH Specifications as per Table 400-13

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TEST REPORT ON GRADATION OF WET MIX MACADAM

Date. :26-1-2023

Client Name : Executive Engineer, Bytarayanapura Division,No 2152/20,Defence Colony,Shankara Nagara,Bangalore-92

***Contractor Name** : M/s Sri A G Narayanaswamy, no 13 Venkateshwara Layout, Horamavu, Bengaluru-560043

Project Name : Improvements to Roads and Drains at MCEHS Layout 1st and 2nd Phase, Sampigehalli, Chokkanahalli, Balaji Krupa Layout, Basavalingappa Nagara, Central Excise Layout, Bellahalli and Kattigenahalli in Ward no 05 and Kaveri Nagara and Shiridi Sai Nagara in Ward no: 06 Bytarayanapura Sub Division.

Letter Reference :BBMP/EE/BTP/WO/80/2022-23, Dated:22-12-2022

PMC Name : Shiprama Consulting Engineers

Locaction :Kaveri Layout 1st Cross

Technical Reference : IS 2720 (Part-4)- 1985 RA 2015, MORTH Table 400-13

Material description : Wet Mix Macadam

Date of Reciept of :26-1-2023

Date of testing :26-1-2023

TEST RESULTS

Total Wt. of Aggregates in gms 17125

Sieve Size in mm	Weight retained (gms)	Cumulative weight retained (gms)	Percentage Cumulative weight retained (%)	Percentage Passing (%)	Specified Limits as per MORTH Table 400-13
53	0	0	0	100	100
45	528	528	3.08	96.92	95-100
22.4	3666	4194	24.49	75.51	60-80
11.2	3130	7324	42.77	57.23	40-60
4.75	3566	10890	63.59	36.41	25-40
2.36	2650	13540	79.07	20.93	15-30
0.6	1503	15043	87.84	12.16	8-22
0.075	1550	16593	96.89	3.11	0-5

Remarks: The above tested sample satisfies MORTH Specifications as per Table 400-13

Notes:-

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TEST REPORT ON GRADATION OF WET MIX MACADAM

Date. :26-1-2023

Client Name : Executive Engineer, Bytarayanapura Division,No 2152/20,Defence Colony,Shankara Nagara,Bangalore-92

***Contractor Name** : M/s Sri A G Narayanaswamy, no 13 Venkateshwara Layout, Horamavu, Bengaluru-560043

Project Name : Improvements to Roads and Drains at MCEHS Layout 1st and 2nd Phase, Sampigehalli, Chokkanahalli, Balaji Krupa Layout, Basavalingappa Nagara, Central Excise Layout, Bellahalli and Kattigenahalli in Ward no 05 and Kaveri Nagara and Shiridi Sai Nagara in Ward no: 06 Bytarayanapura Sub Division.

Letter Reference :BBMP/EE/BTP/WO/80/2022-23, Dated:22-12-2022

PMC Name : Shiprama Consulting Engineers

Locaction :Kaveri Layout 1st Cross

Technical Reference : IS 2720 (Part-4)- 1985 RA 2015, MORTH Table 400-13

Material description : Wet Mix Macadam

Date of Reciept of :26-1-2023

Date of testing :26-1-2023

TEST RESULTS

Total Wt. of Aggregates in gms 17125

Sieve Size in mm	Weight retained (gms)	Cumulative weight retained (gms)	Percentage Cumulative weight retained (%)	Percentage Passing (%)	Specified Limits as per MORTH Table 400-13
53	0	0	0	100	100
45	529	529	3.09	96.91	95-100
22.4	3474	4003	23.38	76.62	60-80
11.2	3160	7163	41.83	58.17	40-60
4.75	3715	10878	63.52	36.48	25-40
2.36	2799	13677	79.87	20.13	15-30
0.6	1601	15278	89.21	10.79	8-22
0.075	1600	16878	98.56	1.44	0-5

Remarks: The above tested sample satisfies MORTH Specifications as per Table 400-13

Notes:-

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TEST REPORT ON GRADATION OF WET MIX MACADAM

Date. :26-1-2023

Client Name : Executive Engineer, Bytarayanapura Division,No 2152/20,Defence Colony,Shankara Nagara,Bangalore-92

***Contractor Name** : M/s Sri A G Narayanaswamy, no 13 Venkateshwara Layout, Horamavu, Bengaluru-560043

Project Name : Improvements to Roads and Drains at MCEHS Layout 1st and 2nd Phase, Sampigehalli, Chokkanahalli, Balaji Krupa Layout, Basavalingappa Nagara, Central Excise Layout, Bellahalli and Kattigenahalli in Ward no 05 and Kaveri Nagara and Shiridi Sai Nagara in Ward no: 06 Bytarayanapura Sub Division.

Letter Reference :BBMP/EE/BTP/WO/80/2022-23, Dated:22-12-2022

PMC Name : Shiprama Consulting Engineers

Locaction :Kaveri Layout 1st Cross

Technical Reference : IS 2720 (Part-4)- 1985 RA 2015, MORTH Table 400-13

Material description : Wet Mix Macadam

Date of Reciept of :26-1-2023

Date of testing :26-1-2023

TEST RESULTS

Total Wt. of Aggregates in gms 17125

Sieve Size in mm	Weight retained (gms)	Cumulative weight retained (gms)	Percentage Cumulative weight retained (%)	Percentage Passing (%)	Specified Limits as per MORTH Table 400-13
53	0	0	0	100	100
45	519	519	3.03	96.97	95-100
22.4	3564	4083	23.84	76.16	60-80
11.2	3111	7194	42.01	57.99	40-60
4.75	3715	10909	63.70	36.30	25-40
2.36	2720	13629	79.59	20.41	15-30
0.6	1625	15254	89.07	10.93	8-22
0.075	1555	16809	98.15	1.85	0-5

Remarks: The above tested sample satisfies MORTH Specifications as per Table 400-13

Notes:-

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TEST REPORT ON GRADATION OF WET MIX MACADAM

Date. :26-1-2023

Client Name : Executive Engineer, Bytarayanapura Division,No 2152/20,Defence Colony,Shankara Nagara,Bangalore-92

***Contractor Name** : M/s Sri A G Narayanaswamy, no 13 Venkateshwara Layout, Horamavu, Bengaluru-560043

Project Name : Improvements to Roads and Drains at MCEHS Layout 1st and 2nd Phase, Sampigehalli, Chokkanahalli, Balaji Krupa Layout, Basavalingappa Nagara, Central Excise Layout, Bellahalli and Kattigenahalli in Ward no 05 and Kaveri Nagara and Shiridi Sai Nagara in Ward no: 06 Bytarayanapura Sub Division.

Letter Reference :BBMP/EE/BTP/WO/80/2022-23, Dated:22-12-2022
PMC Name : Shiprama Consulting Engineers
Locaction :Kaveri Layout 1st Cross
Technical Reference : IS 2720 (Part-4)- 1985 RA 2015, MORTH Table 400-13
Material description : Wet Mix Macadam
Date of Reciept of :26-1-2023
Date of testing :26-1-2023

TEST RESULTS

Total Wt. of Aggregates in gms 17125

Sieve Size in mm	Weight retained (gms)	Cumulative weight retained (gms)	Percentage Cumulative weight retained (%)	Percentage Passing (%)	Specified Limits as per MORTH Table 400-13
53	0	0	0	100	100
45	518	518	3.02	96.98	95-100
22.4	3564	4082	23.84	76.16	60-80
11.2	3111	7193	42.00	58.00	40-60
4.75	3730	10923	63.78	36.22	25-40
2.36	2708	13631	79.60	20.40	15-30
0.6	1599	15230	88.93	11.07	8-22
0.075	1420	16650	97.23	2.77	0-5

Remarks: The above tested sample satisfies MORTH Specifications as per Table 400-13

Notes:-

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TEST REPORT ON GRADATION OF WET MIX MACADAM

Date. :31-1-2023

Client Name : Executive Engineer, Bytarayanapura Division,No 2152/20,Defence Colony,Shankara Nagara,Bangalore-92

***Contractor Name** : M/s Sri A G Narayanaswamy, no 13 Venkateshwara Layout, Horamavu, Bengaluru-560043

Project Name : Improvements to Roads and Drains at MCEHS Layout 1st and 2nd Phase, Sampigehalli, Chokkanahalli, Balaji Krupa Layout, Basavalingappa Nagara, Central Excise Layout, Bellahalli and Kattigenahalli in Ward no 05 and Kaveri Nagara and Shiridi Sai Nagara in Ward no: 06 Bytarayanapura Sub Division.

Letter Reference :BBMP/EE/BTP/WO/80/2022-23, Dated:22-12-2022
PMC Name : Shiprama Consulting Engineers
Locaction :Shiradi Sai Nagar 8st Cross
Technical Reference : IS 2720 (Part-4)- 1985 RA 2015, MORTH Table 400-13
Material description : Wet Mix Macadam
Date of Reciept of :31-1-2023
Date of testing :31-1-2023

TEST RESULTS

Total Wt. of Aggregates in gms 17125

Sieve Size in mm	Weight retained (gms)	Cumulative weight retained (gms)	Percentage Cumulative weight retained (%)	Percentage Passing (%)	Specified Limits as per MORTH Table 400-13
53	0	0	0	100	100
45	514	514	3.00	97.00	95-100
22.4	3466	3980	23.24	76.76	60-80
11.2	3100	7080	41.34	58.66	40-60
4.75	3701	10781	62.95	37.05	25-40
2.36	2755	13536	79.04	20.96	15-30
0.6	1555	15091	88.12	11.88	8-22
0.075	1510	16601	96.94	3.06	0-5

Remarks: The above tested sample satisfies MORTH Specifications as per Table 400-13

Notes:-

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ಬಿ.ಬಿ.ಎಂ.ಪಿ. ಬ್ಯಾಟರಾಯನಪುರ ಉಪ ವಿಭಾಗ

ಸಹಾಯಕ ಕಾರ್ಯಪಾಲಕ ಅಭಿಯಂತರರು
ಬ್ಯಾಟರಾಯನಪುರ ಉಪ ವಿಭಾಗ
ಬಿ.ಬಿ.ಎಂ.ಪಿ., ಬೆಂಗಳೂರು-24

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TEST REPORT ON GRADATION OF WET MIX MACADAM

Date. :31-1-2023

Client Name : Executive Engineer, Bytarayanapura Division,No 2152/20,Defence Colony,Shankara Nagara,Bangalore-92

***Contractor Name** : M/s Sri A G Narayanaswamy, no 13 Venkateshwara Layout, Horamavu, Bengaluru-560043

Project Name : Improvements to Roads and Drains at MCEHS Layout 1st and 2nd Phase, Sampigehalli, Chokkanahalli, Balaji Krupa Layout, Basavalingappa Nagara, Central Excise Layout, Bellahalli and Kattigenahalli in Ward no 05 and Kaveri Nagara and Shiridi Sai Nagara in Ward no: 06 Bytarayanapura Sub Division.

Letter Reference :BBMP/EE/BTP/WO/80/2022-23, Dated:22-12-2022
PMC Name : Shiprama Consulting Engineers
Locaction :Shiradi Sai Nagar 8st Cross
Technical Reference : IS 2720 (Part-4)- 1985 RA 2015, MORTH Table 400-13
Material description : Wet Mix Macadam
Date of Reciept of :31-1-2023
Date of testing :31-1-2023

TEST RESULTS

Total Wt. of Aggregates in gms 17125

Sieve Size in mm	Weight retained (gms)	Cumulative weight retained (gms)	Percentage Cumulative weight retained (%)	Percentage Passing (%)	Specified Limits as per MORTH Table 400-13
53	0	0	0	100	100
45	510	510	2.98	97.02	95-100
22.4	3123	3633	21.21	78.79	60-80
11.2	3125	6758	39.46	60.54	40-60
4.75	3706	10464	61.10	38.90	25-40
2.36	2800	13264	77.45	22.55	15-30
0.6	1615	14879	86.88	13.12	8-22
0.075	1530	16409	95.82	4.18	0-5

Remarks: The above tested sample satisfies MORTH Specifications as per Table 400-13

Notes:-

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SHIPRAMA CONSULTING ENGINEERS PRIVATE LIMITED
(MECHANICAL TESTING LABORATORY DIVISION)
ISO 9001:2015 Certified Company

TEST REPORT ON GRADATION OF WET MIX MACADAM

Date. :31-1-2023

Client Name : Executive Engineer, Bytarayanapura Division,No 2152/20,Defence Colony,Shankara Nagara,Bangalore-92

***Contractor Name** : M/s Sri A G Narayanaswamy, no 13 Venkateshwara Layout, Horamavu, Bengaluru-560043

Project Name : Improvements to Roads and Drains at MCEHS Layout 1st and 2nd Phase, Sampigehalli, Chokkanahalli, Balaji Krupa Layout, Basavalingappa Nagara, Central Excise Layout, Bellahalli and Kattigenahalli in Ward no 05 and Kaveri Nagara and Shiridi Sai Nagara in Ward no: 06 Bytarayanapura Sub Division.

Letter Reference :BBMP/EE/BTP/WO/80/2022-23, Dated:22-12-2022
PMC Name : Shiprama Consulting Engineers
Locaction :Shiradi Sai Nagar 8st Cross
Technical Reference : IS 2720 (Part-4)- 1985 RA 2015, MORTH Table 400-13
Material description : Wet Mix Macadam
Date of Reciept of :31-1-2023
Date of testing :31-1-2023

TEST RESULTS

Total Wt. of Aggregates in gms 17125

Sieve Size in mm	Weight retained (gms)	Cumulative weight retained (gms)	Percentage Cumulative weight retained (%)	Percentage Passing (%)	Specified Limits as per MORTH Table 400-13
53	0	0	0	100	100
45	520	520	3.04	96.96	95-100
22.4	3574	4094	23.91	76.09	60-80
11.2	3152	7246	42.31	57.69	40-60
4.75	3765	11011	64.30	35.70	25-40
2.36	2811	13822	80.71	19.29	15-30
0.6	1515	15337	89.56	10.44	8-22
0.075	1615	16952	98.99	1.01	0-5

Remarks: The above tested sample satisfies MORTH Specifications as per Table 400-13

Notes:-

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TEST REPORT ON GRADATION OF WET MIX MACADAM

Date. :31-1-2023

Client Name : Executive Engineer, Bytarayanapura Division,No 2152/20,Defence Colony,Shankara Nagara,Bangalore-92

***Contractor Name** : M/s Sri A G Narayanaswamy, no 13 Venkateshwara Layout, Horamavu, Bengaluru-560043

Project Name : Improvements to Roads and Drains at MCEHS Layout 1st and 2nd Phase, Sampigehalli, Chokkanahalli, Balaji Krupa Layout, Basavalingappa Nagara, Central Excise Layout, Bellahalli and Kattigenahalli in Ward no 05 and Kaveri Nagara and Shiridi Sai Nagara in Ward no: 06 Bytarayanapura Sub Division.

Letter Reference :BBMP/EE/BTP/WO/80/2022-23, Dated:22-12-2022

PMC Name : Shiprama Consulting Engineers

Locaction :Shiradi Sai Nagar 8st Cross

Technical Reference : IS 2720 (Part-4)- 1985 RA 2015, MORTH Table 400-13

Material description : Wet Mix Macadam

Date of Reciept of :31-1-2023

Date of testing :31-1-2023

TEST RESULTS

Total Wt. of Aggregates in gms 17125

Sieve Size in mm	Weight retained (gms)	Cumulative weight retained (gms)	Percentage Cumulative weight retained (%)	Percentage Passing (%)	Specified Limits as per MORTH Table 400-13
53	0	0	0	100	100
45	522	522	3.05	96.95	95-100
22.4	3475	3997	23.34	76.66	60-80
11.2	3192	7189	41.98	58.02	40-60
4.75	3715	10904	63.67	36.33	25-40
2.36	2708	13612	79.49	20.51	15-30
0.6	1616	15228	88.92	11.08	8-22
0.075	1501	16729	97.69	2.31	0-5

Remarks: The above tested sample satisfies MORTH Specifications as per Table 400-13

Notes:-

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ಬಿ.ಬಿ.ಎಂ.ಪಿ.

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ಬೈಟರಾಯನಪುರ ಉಪ ವಿಭಾಗ
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TEST REPORT ON AGGREGATE IMPACT VALUE OF WET MIX MACADAM

Date. :24-1-2023

Client Name : Executive Engineer, Bytarayanapura Division,No 2152/20,Defence Colony,Sahakara Nagara,Bangalore-92

***Contractor Name** : M/s Sri A G Narayanaswamy, no 13 Venkateshwara Layout, Horamavu, Bengaluru-560043

Project Name : Improvements to Roads and Drains at MCEHS Layout 1st and 2nd Phase, Sampigehalli, Chokkanahalli, Balaji Krupa Layout, Basavalingappa Nagara, Central Excise Layout, Bellahalli and Kattigenahalli in Ward no 05 and Kaveri Nagara and Shiridi Sai Nagara in Ward no: 06 Bytarayanapura Sub

Letter Reference :BBMP/EE/BTP/WO/80/2022-23, Dated:22-12-2022
PMC Name : Shiprama Consulting Engineers
Locaction :Prashanthi Nagar
Technical Reference : IS 2720 (Part-4)- 1985 RA 2015, MORTH Table 400-13
Material description : Wet Mix Macadam
Date of Reciept of :24-1-2023
Date of testing :24-1-2023

TEST RESULTS

Sl No.	Details	Trial No.			Average
		1	2	3	
1	Total weight of aggregate sample filling the cylindrical measure = W_1 g	382	372	384	
2	Weight of agregate passing 2.36 mm sieve after the test = W_2 g	84	82	81	
3	Weight of aggregate retained 2.36 mm sieve after the test = W_3 g	298	290	303	
4	Aggregate Impact value = percent fines	21.99	22.04	21.09	
	100* (W_2/W_1)%				21.71

Remarks: Maximum allowable Aggregate Impact value for Wet mix Macadam is 30%

Notes:-

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TEST REPORT ON AGGREGATE IMPACT VALUE OF WET MIX MACADAM

Date. :26-1-2023

Client Name : Executive Engineer, Bytarayanapura Division,No 2152/20,Defence Colony,Sahakara Nagara,Bangalore-92

***Contractor Name** : M/s Sri A G Narayanaswamy, no 13 Venkateshwara Layout, Horamavu, Bengaluru-560043

Project Name : Improvements to Roads and Drains at MCEHS Layout 1st and 2nd Phase, Sampigehalli, Chokkanahalli, Balaji Krupa Layout, Basavalingappa Nagara, Central Excise Layout, Bellahalli and Kattigenahalli in Ward no 05 and Kaveri Nagara and Shiridi Sai Nagara in Ward no: 06 Bytarayanapura Sub

Letter Reference :BBMP/EE/BTP/WO/80/2022-23, Dated:22-12-2022
PMC Name : Shiprama Consulting Engineers
Locaction :Kaveri Layout 1st Cross
Technical Reference : IS 2720 (Part-4)- 1985 RA 2015, MORTH Table 400-13
Material description : Wet Mix Macadam
Date of Reciept of :26-1-2023
Date of testing :26-1-2023

TEST RESULTS

Sl No.	Details	Trial No.			Average
		1	2	3	
1	Total weight of aggregate sample filling the cylindrical measure = W_1 g	381	373	383	
2	Weight of agregate passing 2.36 mm sieve after the test = W_2 g	85	81	82	
3	Weight of aggregate retained 2.36 mm sieve after the test = W_3 g	296	292	301	
4	Aggregate Impact value = percent fines	22.31	21.72	21.41	
	100* (W_2/W_1)%				21.81

Remarks: Maximum allowable Aggregate Impact value for Wet mix Macadam is 30%

Notes:-

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TEST REPORT ON AGGREGATE IMPACT VALUE OF WET MIX MACADAM

Date. :31-1-2023

Client Name : Executive Engineer, Bytarayanapura Division,No 2152/20,Defence Colony,Sahakara Nagara,Bangalore-92

***Contractor Name** : M/s Sri A G Narayanaswamy, no 13 Venkateshwara Layout, Horamavu, Bengaluru-560043

Project Name : Improvements to Roads and Drains at MCEHS Layout 1st and 2nd Phase, Sampigehalli, Chokkanahalli, Balaji Krupa Layout, Basavalingappa Nagara, Central Excise Layout, Bellahalli and Kattigenahalli in Ward no 05 and Kaveri Nagara and Shiridi Sai Nagara in Ward no: 06 Bytarayanapura Sub

Letter Reference :BBMP/EE/BTP/WO/80/2022-23, Dated:22-12-2022
PMC Name : Shiprama Consulting Engineers
Locaction :Shiradi Sai Nagar 3rd Cross
Technical Reference : IS 2720 (Part-4)- 1985 RA 2015, MORTH Table 400-13
Material description : Wet Mix Macadam

Date of Reciept of :31-1-2023
Date of testing :31-1-2023

TEST RESULTS

Sl No.	Details	Trial No.			Average
		1	2	3	
1	Total weight of aggregate sample filling the cylindrical measure = W_1 g	383	371	385	
2	Weight of agregate passing 2.36 mm sieve after the test = W_2 g	81	83	84	
3	Weight of aggregate retained 2.36 mm sieve after the test = W_3 g	302	288	301	
4	Aggregate Impact value = percent fines	21.15	22.37	21.82	
	100* (W_2/W_1)%				21.78

Remarks: Maximum allowable Aggregate Impact value for Wet mix Macadam is 30%

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TEST REPORT ON FLAKINESS & ELONGATION OF WET MIX MACADAM

Date.	:24-1-2023
Client Name	: Executive Engineer, Bytarayanapura Division,No 2152/20,Defence Colony,Sahakara Nagara,Bangalore-92
***Contractor Name**	: M/s Sri A G Narayanaswamy, no 13 Venkateshwara Layout, Horamavu, Bengaluru-560043
Project Name	: Improvements to Roads and Drains at MCEHS Layout 1st and 2nd Phase, Sampigehalli, Chokkanahalli, Balaji Krupa Layout, Basavalingappa Nagara, Central Excise Layout, Bellahalli and Kattigenahalli in Ward no 05 and Kaveri Nagara and Shiridi Sai Nagara in Ward no: 06 Bytarayanapura Sub Division.
Letter Reference	:BBMP/EE/BTP/WO/80/2022-23, Dated:22-12-2022
PMC Name	: Shiprama Consulting Engineers
Locaction	:Prashanthi Nagar
Technical Reference	: IS:2386(part 1)-1963 RA 2016, MORTH Table 400-12
Material description	: Wet Mix Macadam
Date of Reciept of	:24-1-2023
Date of testing	:24-1-2023

TEST RESULTS

Sl. No.	Particulars	Test Results	Standards as per Specifications As per MORTH Table 400-12
1	Flakiness Index	15.25%	Maximum allowable Flakiness & Elongation Index for Wet Mix macadam is 35%
2	Elongation Index	11.40%	
	Combined Flakiness & Elongation	**26.65%**	

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TEST REPORT ON FLAKINESS & ELONGATION OF WET MIX MACADAM

Date. :24-1-2023

Client Name : Executive Engineer, Bytarayanapura Division,No 2152/20,Defence Colony,Sahakara Nagara,Bangalore-92

***Contractor Name** : M/s Sri A G Narayanaswamy, no 13 Venkateshwara Layout, Horamavu, Bengaluru-560043

Project Name : Improvements to Roads and Drains at MCEHS Layout 1st and 2nd Phase, Sampigehalli, Chokkanahalli, Balaji Krupa Layout, Basavalingappa Nagara, Central Excise Layout, Bellahalli and Kattigenahalli in Ward no 05 and Kaveri Nagara and Shiridi Sai Nagara in Ward no: 06 Bytarayanapura Sub Division.

Letter Reference :BBMP/EE/BTP/WO/80/2022-23, Dated:22-12-2022

PMC Name : Shiprama Consulting Engineers

Locaction :Prashanthi Nagar

Technical Reference : IS:2386(part 1)-1963 RA 2016, MORTH Table 400-12

Material description : Wet Mix Macadam

Date of Reciept of :24-1-2023

Date of testing :24-1-2023

TEST RESULTS

Sl. No.	Particulars	Test Results	Standards as per Specifications As per MORTH Table 400-12
1	Flakiness Index	15.25%	Maximum allowable Flakiness & Elongation Index for Wet Mix macadam is 35%
2	Elongation Index	11.90%	
	Combined Flakiness & Elongation	**27.15%**	

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ಸಹಾಯಕ ಅಭಿಯಂತರರು
ಬ್ಯಾಟರಾಯನಪುರ ಉಪ ವಿಭಾಗ
ಬಿ.ಬಿ.ಎಂ.ಪಿ., ಬೆಂಗಳೂರು-26

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TEST REPORT ON FLAKINESS & ELONGATION OF WET MIX MACADAM

Date.	:26-1-2023
Client Name	: Executive Engineer, Bytarayanapura Division,No 2152/20,Defence Colony,Sahakara Nagara,Bangalore-92
***Contractor Name**	: M/s Sri A G Narayanaswamy, no 13 Venkateshwara Layout, Horamavu, Bengaluru-560043
Project Name	: Improvements to Roads and Drains at MCEHS Layout 1st and 2nd Phase, Sampigehalli, Chokkanahalli, Balaji Krupa Layout, Basavalingappa Nagara, Central Excise Layout, Bellahalli and Kattigenahalli in Ward no 05 and Kaveri Nagara and Shiridi Sai Nagara in Ward no: 06 Bytarayanapura Sub Division.
Letter Reference	:BBMP/EE/BTP/WO/80/2022-23, Dated:22-12-2022
PMC Name	: Shiprama Consulting Engineers
Locaction	:Kaveri Layout 1st Cross
Technical Reference	: IS:2386(part 1)-1963 RA 2016, MORTH Table 400-12
Material description	: Wet Mix Macadam
Date of Reciept of	:26-1-2023
Date of testing	:26-1-2023

TEST RESULTS

Sl. No.	Particulars	Test Results	Standards as per Specifications As per MORTH Table 400-12
1	Flakiness Index	16.50%	Maximum allowable Flakiness & Elongation Index for Wet Mix macadam is 35%
2	Elongation Index	12.60%	
	Combined Flakiness & Elongation	**29.10%**	

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TEST REPORT ON FLAKINESS & ELONGATION OF WET MIX MACADAM

Date.	:26-1-2023
Client Name	: Executive Engineer, Bytarayanapura Division,No 2152/20,Defence Colony,Sahakara Nagara,Bangalore-92
***Contractor Name**	: M/s Sri A G Narayanaswamy, no 13 Venkateshwara Layout, Horamavu, Bengaluru-560043
Project Name	: Improvements to Roads and Drains at MCEHS Layout 1st and 2nd Phase, Sampigehalli, Chokkanahalli, Balaji Krupa Layout, Basavalingappa Nagara, Central Excise Layout, Bellahalli and Kattigenahalli in Ward no 05 and Kaveri Nagara and Shiridi Sai Nagara in Ward no: 06 Bytarayanapura Sub Division.
Letter Reference	:BBMP/EE/BTP/WO/80/2022-23, Dated:22-12-2022
PMC Name	: Shiprama Consulting Engineers
Locaction	:Kaveri Layout 1st Cross
Technical Reference	: IS:2386(part 1)-1963 RA 2016, MORTH Table 400-12
Material description	: Wet Mix Macadam
Date of Reciept of	:26-1-2023
Date of testing	:26-1-2023

TEST RESULTS

Sl. No.	Particulars	Test Results	Standards as per Specifications As per MORTH Table 400-12
1	Flakiness Index	17.10%	Maximum allowable Flakiness & Elongation Index for Wet Mix macadam is 35%
2	Elongation Index	12.45%	
	Combined Flakiness & Elongation	**29.55%**	

Notes:-

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TEST REPORT ON FLAKINESS & ELONGATION OF WET MIX MACADAM

Date. :26-1-2023

Client Name : Executive Engineer, Bytarayanapura Division,No 2152/20,Defence Colony,Sahakara Nagara,Bangalore-92

***Contractor Name** : M/s Sri A G Narayanaswamy, no 13 Venkateshwara Layout, Horamavu, Bengaluru-560043

Project Name : Improvements to Roads and Drains at MCEHS Layout 1st and 2nd Phase, Sampigehalli, Chokkanahalli, Balaji Krupa Layout, Basavalingappa Nagara, Central Excise Layout, Bellahalli and Kattigenahalli in Ward no 05 and Kaveri Nagara and Shiridi Sai Nagara in Ward no: 06 Bytarayanapura Sub Division.

Letter Reference :BBMP/EE/BTP/WO/80/2022-23, Dated:22-12-2022

PMC Name : Shiprama Consulting Engineers

Locaction :Kaveri Layout 1st Cross

Technical Reference : IS:2386(part 1)-1963 RA 2016, MORTH Table 400-12

Material description : Wet Mix Macadam

Date of Reciept of :26-1-2023

Date of testing :26-1-2023

TEST RESULTS

Sl. No.	Particulars	Test Results	Standards as per Specifications As per MORTH Table 400-12
1	Flakiness Index	17.50%	Maximum allowable Flakiness & Elongation Index for Wet Mix macadam is 35%
2	Elongation Index	13.40%	
	Combined Flakiness & Elongation	**30.90%**	

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ಬಿ.ಬಿ.ಎಂ.ಪಿ, ಬೆಂಗಳೂರು-೨೫

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TEST REPORT ON FLAKINESS & ELONGATION OF WET MIX MACADAM

Date.	:31-1-2023
Client Name	: Executive Engineer, Bytarayanapura Division,No 2152/20,Defence Colony,Sahakara Nagara,Bangalore-92
***Contractor Name**	: M/s Sri A G Narayanaswamy, no 13 Venkateshwara Layout, Horamavu, Bengaluru-560043
Project Name	: Improvements to Roads and Drains at MCEHS Layout 1st and 2nd Phase, Sampigehalli, Chokkanahalli, Balaji Krupa Layout, Basavalingappa Nagara, Central Excise Layout, Bellahalli and Kattigenahalli in Ward no 05 and Kaveri Nagara and Shiridi Sai Nagara in Ward no: 06 Bytarayanapura Sub Division.
Letter Reference	:BBMP/EE/BTP/WO/80/2022-23, Dated:22-12-2022
PMC Name	: Shiprama Consulting Engineers
Locaction	:Shiradi Sai Nagar 3rd Cross
Technical Reference	: IS:2386(part 1)-1963 RA 2016, MORTH Table 400-12
Material description	: Wet Mix Macadam
Date of Reciept of	:31-1-2023
Date of testing	:31-1-2023

TEST RESULTS

Sl. No.	Particulars	Test Results	Standards as per Specifications As per MORTH Table 400-12
1	Flakiness Index	17.10%	Maximum allowable Flakiness & Elongation Index for Wet Mix macadam is 35%
2	Elongation Index	14.10%	
	Combined Flakiness & Elongation	**31.20%**	

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ಬ್ಯಾಟರಾಯನಪುರ ಉಪ ವಿಭಾಗ
ಬಿ.ಬಿ.ಎಂ.ಪಿ, ಬೆಂಗಳೂರು-೨೬

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TEST REPORT ON FLAKINESS & ELONGATION OF WET MIX MACADAM

Date.	:31-1-2023
Client Name	: Executive Engineer, Bytarayanapura Division,No 2152/20,Defence Colony,Sahakara Nagara,Bangalore-92
***Contractor Name**	: M/s Sri A G Narayanaswamy, no 13 Venkateshwara Layout, Horamavu, Bengaluru-560043
Project Name	: Improvements to Roads and Drains at MCEHS Layout 1st and 2nd Phase, Sampigehalli, Chokkanahalli, Balaji Krupa Layout, Basavalingappa Nagara, Central Excise Layout, Bellahalli and Kattigenahalli in Ward no 05 and Kaveri Nagara and Shiridi Sai Nagara in Ward no: 06 Bytarayanapura Sub Division.
Letter Reference	:BBMP/EE/BTP/WO/80/2022-23, Dated:22-12-2022
PMC Name	: Shiprama Consulting Engineers
Locaction	:Shiradi Sai Nagar 3rd Cross
Technical Reference	: IS:2386(part 1)-1963 RA 2016, MORTH Table 400-12
Material description	: Wet Mix Macadam
Date of Reciept of	:31-1-2023
Date of testing	:31-1-2023

TEST RESULTS

Sl. No.	Particulars	Test Results	Standards as per Specifications As per MORTH Table 400-12
1	Flakiness Index	18.50%	Maximum allowable Flakiness & Elongation Index for Wet Mix macadam is 35%
2	Elongation Index	12.20%	
	Combined Flakiness & Elongation	**30.70%**	

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TEST REPORT ON BITUMEN CONTENT AND GRADATION FOR DENSE GRADED BITUMINOUS MACADAM

Date.	:16-3-2023
Client Name	: Executive Engineer, Bytarayanapura Division,No 2152/20,Defence Colony,Sahakara Nagara,Bangalore-92
***Contractor Name**	: M/s Sri A G Narayanaswamy, no 13 Venkateshwara Layout, Horamavu, Bengaluru-560043
Project Name	: Improvements to Roads and Drains at MCEHS Layout 1st and 2nd Phase, Sampigehalli, Chokkanahalli, Balaji Krupa Layout, Basavalingappa Nagara, Central Excise Layout, Bellahalli and Kattigenahalli in Ward no 05 and Kaveri Nagara and Shiridi Sai Nagara in Ward no: 06 Bytarayanapura Sub Division.
Letter Reference	:BBMP/EE/BTP/WO/80/2022-23, Dated:22-12-2022
Location	: Shiradi Sai Nagar 3rd Cross
Source of Sample	: At Site
Technical Reference	: IS 2720 (Part-4)- 1985 RA 2015, AASHTO T 164 & AASHTO T 30 & MORTH
Material description	: Dense Graded Bituminous Macadam
Date of Reciept of Sample	:16-3-2023
Date of testing	:16-3-2023

TEST RESULTS

BITUMEN CONTENT

Description	Trail 1	Trail 2
1. Weight of Mixture before Test, g	500	500
2. Weight of Mixture after Test, g	476	476.5
3. Weight of Asphalt and Mineral matter Extracted, g	-	-
4. Weight of Mineral Matter, g.	-	-
5. Weight of Ash, g		
6. Weight of Bitumen Extracted, g. (corrected)	24	23.50
7. Bitumen content in %	4.80	4.70
8. Average	4.75	

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Total Wt. of Aggregates in gms 476

Sieve Size in mm	Weight retained (gms)	Cumulative weight retained (gms)	Percentage Cumulative weight retained (%)	Percentage Passing (%)	Specified Limits as per MORTH Table 500-10
37.5	0	0	0	100	100
26.5	32.5	32.5	6.83	93.17	90 - 100
19	51.2	83.7	17.58	82.42	71 - 95
13.2	36.8	120.5	25.32	74.68	56 - 80
4.75	125.2	245.7	51.62	48.38	38 - 54
2.36	68.5	314.2	66.01	33.99	28 - 42
0.3	85.9	400.1	84.05	15.95	7 - 21
0.075	45.3	445.4	93.57	6.43	2 - 8

Total Wt. of Aggregates in gms 476.5

Sieve Size in mm	Weight retained (gms)	Cumulative weight retained (gms)	Percentage Cumulative weight retained (%)	Percentage Passing (%)	Specified Limits as per MORTH Table 500-10
37.5	0	0	0	100	100
26.5	31.4	31.4	6.59	93.41	90 - 100
19	58.6	90	18.89	81.11	71 - 95
13.2	36.2	126.2	26.48	73.52	56 - 80
4.75	129.5	255.7	53.66	46.34	38 - 54
2.36	62.9	318.6	66.86	33.14	28 - 42
0.3	82.4	401	84.16	15.84	7 - 21
0.075	55.5	456.5	95.80	4.20	2 - 8

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TEST REPORT ON BITUMEN CONTENT AND GRADATION FOR DENSE GRADED BITUMINOUS MACADAM

Date.	:28-4-2023
Client Name	: Executive Engineer, Bytarayanapura Division,No 2152/20,Defence Colony,Sahakara Nagara,Bangalore-92
***Contractor Name**	: M/s Sri A G Narayanaswamy, no 13 Venkateshwara Layout, Horamavu, Bengaluru-560043
Project Name	: Improvements to Roads and Drains at MCEHS Layout 1st and 2nd Phase, Sampigehalli, Chokkanahalli, Balaji Krupa Layout, Basavalingappa Nagara, Central Excise Layout, Bellahalli and Kattigenahalli in Ward no 05 and Kaveri Nagara and Shiridi Sai Nagara in Ward no: 06 Bytarayanapura Sub Division.
Letter Reference	:BBMP/EE/BTP/WO/80/2022-23, Dated:22-12-2022
Location	: Hegde Nagar 8th Cross
Source of Sample	: At Site
Technical Reference	: IS 2720 (Part-4)- 1985 RA 2015, AASHTO T 164 & AASHTO T 30 & MORTH
Material description	: Dense Graded Bituminous Macadam
Date of Reciept of Sample	:28-4-2023
Date of testing	:28-4-2023

TEST RESULTS

BITUMEN CONTENT

Description	Trail 1	Trail 2
1. Weight of Mixture before Test, g	500	500
2. Weight of Mixture after Test, g	477.5	476
3. Weight of Asphalt and Mineral matter Extracted, g	-	-
4. Weight of Mineral Matter, g.	-	-
5. Weight of Ash, g		
6. Weight of Bitumen Extracted, g. (corrected)	22.5	24.00
7. Bitumen content in %	4.50	4.80
8. Average	4.65	

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Total Wt. of Aggregates in gms 477.5

Sieve Size in mm	Weight retained (gms)	Cumulative weight retained (gms)	Percentage Cumulative weight retained (%)	Percentage Passing (%)	Specified Limits as per MORTH Table 500-10
37.5	0	0	0	100	100
26.5	31.5	31.5	6.60	93.40	90 - 100
19	52.2	83.7	17.53	82.47	71 - 95
13.2	35.9	119.6	25.05	74.95	56 - 80
4.75	125.6	245.2	51.35	48.65	38 - 54
2.36	68.4	313.6	65.68	34.32	28 - 42
0.3	85.6	399.2	83.60	16.40	7 - 21
0.075	48.4	447.6	93.74	6.26	2 - 8

Total Wt. of Aggregates in gms 476

Sieve Size in mm	Weight retained (gms)	Cumulative weight retained (gms)	Percentage Cumulative weight retained (%)	Percentage Passing (%)	Specified Limits as per MORTH Table 500-10
37.5	0	0	0	100	100
26.5	32.6	32.6	6.85	93.15	90 - 100
19	59.6	92.2	19.37	80.63	71 - 95
13.2	36.5	128.7	27.04	72.96	56 - 80
4.75	129.8	258.5	54.31	45.69	38 - 54
2.36	64.5	323	67.86	32.14	28 - 42
0.3	83.5	406.5	85.40	14.60	7 - 21
0.075	54.4	460.9	96.83	3.17	2 - 8

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TEST REPORT ON GRADATION

Date.	:15-3-2023
Client Name	: Executive Engineer, Bytarayanapura Division,No 2152/20,Defence Colony,Sahakara Nagara,Bangalore-92
***Contractor Name**	: M/s Sri A G Narayanaswamy, no 13 Venkateshwara Layout, Horamavu, Bengaluru-560043
Project Name	: Improvements to Roads and Drains at MCEHS Layout 1st and 2nd Phase, Sampigehalli, Chokkanahalli, Balaji Krupa Layout, Basavalingappa Nagara, Central Excise Layout, Bellahalli and Kattigenahalli in Ward no 05 and Kaveri Nagara and Shiridi Sai Nagara in Ward no: 06 Bytarayanapura Sub Division.
Letter Reference	:BBMP/EE/BTP/WO/80/2022-23, Dated:22-12-2022
Location	: Shiradi Sai Nagar 3rd Cross
Source of Sample	: At Site
Technical Reference	: IS 2720 (Part-4)- 1985 RA 2016, MORTH Table 500-10
Material description	: Dense Graded Bituminous Macadam
Date of Reciept of Sample	:15-3-2023
Date of testing	:15-3-2023

TEST RESULTS

Total Wt. of Aggregates in gms 13124

Sieve Size in mm	Weight retained (gms)	Cumulative weight retained (gms)	Percentage Cumulative weight retained (%)	Percentage Passing (%)	Specified Limits as per MORTH Table 500-10
37.5	0	0	0	100	100
26.5	490	490	3.73	96.27	90 - 100
19	2271	2761	21.04	78.96	71 - 95
13.2	2470	5231	39.86	60.14	56 - 80
4.75	2600	7831	59.67	40.33	38 - 54
2.36	1320	9151	69.73	30.27	28 - 42
0.3	2381	11532	87.87	12.13	7 - 21
0.075	630	12162	92.67	7.33	2 - 8

Remarks: The above tested sample satisfies MORTH Specifications as per Table 500-10, Grading II

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TEST REPORT ON GRADATION

Date.	:27-4-2023
Client Name	: Executive Engineer, Bytarayanapura Division,No 2152/20,Defence Colony,Sahakara Nagara,Bangalore-92
***Contractor Name**	: M/s Sri A G Narayanaswamy, no 13 Venkateshwara Layout, Horamavu, Bengaluru-560043
Project Name	: Improvements to Roads and Drains at MCEHS Layout 1st and 2nd Phase, Sampigehalli, Chokkanahalli, Balaji Krupa Layout, Basavalingappa Nagara, Central Excise Layout, Bellahalli and Kattigenahalli in Ward no 05 and Kaveri Nagara and Shiridi Sai Nagara in Ward no: 06 Bytarayanapura Sub Division.
Letter Reference	:BBMP/EE/BTP/WO/80/2022-23, Dated:22-12-2022
Location	: Hegde Nagar 8th Cross
Source of Sample	: At Site
Technical Reference	: IS 2720 (Part-4)- 1985 RA 2016, MORTH Table 500-10
Material description	: Dense Graded Bituminous Macadam
Date of Reciept of Sample	:27-4-2023
Date of testing	:27-4-2023

TEST RESULTS

Total Wt. of Aggregates in gms 13124

Sieve Size in mm	Weight retained (gms)	Cumulative weight retained (gms)	Percentage Cumulative weight retained (%)	Percentage Passing (%)	Specified Limits as per MORTH Table 500-10
37.5	0	0	0	100	100
26.5	489	489	3.73	96.27	90 - 100
19	2341	2830	21.56	78.44	71 - 95
13.2	2561	5391	41.08	58.92	56 - 80
4.75	2640	8031	61.19	38.81	38 - 54
2.36	1378	9409	71.69	28.31	28 - 42
0.3	2385	11794	89.87	10.13	7 - 21
0.075	641	12435	94.75	5.25	2 - 8

Remarks: The above tested sample satisfies MORTH Specifications as per Table 500-10, Grading II

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TEST REPORT ON AGGREGATE IMPACT VALUE

Date. :15-3-2023

Client Name : Executive Engineer, Bytarayanapura Division,No 2152/20,Defence Colony,Shankara Nagara,Bangalore-92

***Contractor Name** : M/s Sri A G Narayanaswamy, no 13 Venkateshwara Layout, Horamavu, Bengaluru-560043

Project Name : Improvements to Roads and Drains at MCEHS Layout 1st and 2nd Phase, Sampigehalli, Chokkanahalli, Balaji Krupa Layout, Basavalingappa Nagara, Central Excise Layout, Bellahalli and Kattigenahalli in Ward no 05 and Kaveri Nagara and Shiridi Sai Nagara in Ward no: 06 Bytarayanapura Sub

Letter Reference :BBMP/EE/BTP/WO/80/2022-23, Dated:22-12-2022

PMC Name : Shiprama Consulting Engineers

Technical Reference : IS 2386 (Part-4)- 1963 RA 2016, MORTH table 500-10

Material description : Dense Graded Bituminous Macadam

Date of Reciept of Sample :15-3-2023

Date of testing :15-3-2023

TEST RESULTS

Sl No.	Details	Trial No.			Average
		1	2	3	
1	Total weight of aggregate sample filling the cylindrical measure = W_1 g	380	381	385	
2	Weight of agregate passing 2.36 mm sieve after the test = W_2 g	91	90	93	
3	Weight of aggregate retained 2.36 mm sieve after the test = W_3 g	289	291	292	
4	Aggregate Impact value = percent fines	23.95	23.62	24.16	
	100* (W_2/W_1)%				23.91

Remarks : Maximum allowable Aggregate Impact value for Dense Graded Bituminous Macadam is 27%

Notes:-

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TEST REPORT ON AGGREGATE IMPACT VALUE

Date. :27-4-2023

Client Name : Executive Engineer, Bytarayanapura Division,No 2152/20,Defence Colony,Shankara Nagara,Bangalore-92

***Contractor Name** : M/s Sri A G Narayanaswamy, no 13 Venkateshwara Layout, Horamavu, Bengaluru-560043

Project Name : Improvements to Roads and Drains at MCEHS Layout 1st and 2nd Phase, Sampigehalli, Chokkanahalli, Balaji Krupa Layout, Basavalingappa Nagara, Central Excise Layout, Bellahalli and Kattigenahalli in Ward no 05 and Kaveri Nagara and Shiridi Sai Nagara in Ward no: 06 Bytarayanapura Sub

Letter Reference :BBMP/EE/BTP/WO/80/2022-23, Dated:22-12-2022

PMC Name : Shiprama Consulting Engineers

Technical Reference : IS 2386 (Part-4)- 1963 RA 2016, MORTH table 500-10

Material description : Dense Graded Bituminous Macadam

Date of Reciept of Sample :27-4-2023

Date of testing :27-4-2023

TEST RESULTS

Sl No.	Details	Trial No.			Average
		1	2	3	
1	Total weight of aggregate sample filling the cylindrical measure = W_1 g	385	386	381	
2	Weight of agregate passing 2.36 mm sieve after the test = W_2 g	91	92	90	
3	Weight of aggregate retained 2.36 mm sieve after the test = W_3 g	294	294	291	
4	Aggregate Impact value = percent fines	23.64	23.83	23.62	
	100* (W_2/W_1)%				**23.70**

Remarks : Maximum allowable Aggregate Impact value for Dense Graded Bituminous Macadam is 27%

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1048, 8th Block Extension ,Gangubai Hangal Road,Sir M. Vishveshwaraiah Layout, Near Gidadakonenahalli
Bengaluru-560091.Mob:9886212878 Ph.: 080 29554444 | Email: shiprama888@gmail.com |

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DETERMINATION OF RATE OF SPREAD PRIME COAT

Date. :16-3-2023

***Client Name** : Executive Engineer, Bytarayanapura Division,No 2152/20,Defence Colony,Sahakara Nagara,Bangalore-92

Contractor Name : M/s Sri A G Narayanaswamy, no 13 Venkateshwara Layout, Horamavu, Bengaluru-560043

Project Name : Improvements to Roads and Drains at MCEHS Layout 1st and 2nd Phase, Sampigehalli, Chokkanahalli, Balaji Krupa Layout, Basavalingappa Nagara, Central Excise Layout, Bellahalli and Kattigenahalli in Ward no 05 and Kaveri Nagara and

Letter Reference :BBMP/EE/BTP/WO/80/2022-23, Dated:22-12-2022

Location : Shiradi Sai Nagar 3rd Cross

PMC Name : Shiprama Consulting Engineers

Date of testing :16-3-2023

		1	2
Size of Plate (mxm)	mt	0.45 X 0.45	0.45 X 0.45
Area of Plate (a)	Sq.m	0.2025	0.2025
Intial Wt of empty Plate (b)	Kg	1.628	1.629
Final weight of plate after application of prime /Tack Coat (c)	Kg	1.768	1.768
Weight of Prime/Tack Coat (d=c-b)	Kg	0.1400	0.1390
Rate of spread of prime /tack coat	kg/Sq.m	0.691	0.686
Average	kg/Sq.m	0.689	
Specified Limit	kg/Sq.m	0.60 Kg/sq.m	

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DETERMINATION OF RATE OF SPREAD PRIME COAT

Date. :28-4-2023

***Client Name** : Executive Engineer, Bytarayanapura Division,No 2152/20,Defence Colony,Sahakara Nagara,Bangalore-92

Contractor Name : M/s Sri A G Narayanaswamy, no 13 Venkateshwara Layout, Horamavu, Bengaluru-560043

Project Name : Improvements to Roads and Drains at MCEHS Layout 1st and 2nd Phase, Sampigehalli, Chokkanahalli, Balaji Krupa Layout, Basavalingappa Nagara, Central Excise Layout, Bellahalli and Kattigenahalli in Ward no 05 and Kaveri Nagara and

Letter Reference :BBMP/EE/BTP/WO/80/2022-23, Dated:22-12-2022

Location : Hegde Nagar 8th Cross

PMC Name : Shiprama Consulting Engineers

Date of testing :28-4-2023

		1	2
Size of Plate (mxm)	mt	0.45 X 0.45	0.45 X 0.45
Area of Plate (a)	Sq.m	0.2025	0.2025
Intial Wt of empty Plate (b)	Kg	1.628	1.628
Final weight of plate after application of prime /Tack Coat (c)	Kg	1.765	1.768
Weight of Prime/Tack Coat (d=c-b)	Kg	0.1370	0.1400
Rate of spread of prime /tack coat	kg/Sq.m	0.677	0.691
Average	kg/Sq.m	0.684	
Specified Limit	kg/Sq.m	0.60 Kg/sq.m	

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TEST REPORT ON BITUMEN

Date.	:15-3-2023
Client Name	: Executive Engineer, Bytarayanapura Division,No 2152/20,Defence Colony,Sahakara Nagara,Bangalore-92
***Contractor Name**	: M/s Sri A G Narayanaswamy, no 13 Venkateshwara Layout, Horamavu, Bengaluru-560043
Project Name	: Improvements to Roads and Drains at MCEHS Layout 1st and 2nd Phase, Sampigehalli, Chokkanahalli, Balaji Krupa Layout, Basavalingappa Nagara, Central Excise Layout, Bellahalli and Kattigenahalli in Ward no 05 and Kaveri Nagara and Shiridi Sai Nagara in Ward no: 06 Bytarayanapura Sub
Letter Reference	:BBMP/EE/BTP/WO/80/2022-23, Dated:22-12-2022
PMC Name	: Shiprama Consulting Engineers
Technical Reference	: IS 73 -2013
Material description	: VG 30 Bitumen
Date of Reciept of Sample	:15-3-2023
Date of testing	:15-3-2023

TEST RESULTS

The results of the tests conducted on the bitumen sample using for Dense Bituminous Macadam

Sl.No	Description	Test Result	Requirement as per IS:73:2013
1	Penetration at 25 ^{0}C, 1/10 mm	58	Min 45
2	Softening point, ^{0}C	47	Min. 47
3	Ductility at 27^{0}C, cm	> 100	Min. 40
4	Flash Point, ^{0}C	362	Min. 220

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TEST REPORT ON BITUMEN

Date.	:27-4-2023
Client Name	: Executive Engineer, Bytarayanapura Division,No 2152/20,Defence Colony,Sahakara Nagara,Bangalore-92
***Contractor Name**	: M/s Sri A G Narayanaswamy, no 13 Venkateshwara Layout, Horamavu, Bengaluru-560043
Project Name	: Improvements to Roads and Drains at MCEHS Layout 1st and 2nd Phase, Sampigehalli, Chokkanahalli, Balaji Krupa Layout, Basavalingappa Nagara, Central Excise Layout, Bellahalli and Kattigenahalli in Ward no 05 and Kaveri Nagara and Shiridi Sai Nagara in Ward no: 06 Bytarayanapura Sub
Letter Reference	:BBMP/EE/BTP/WO/80/2022-23, Dated:22-12-2022
PMC Name	: Shiprama Consulting Engineers
Technical Reference	: IS 73 -2013
Material description	: VG 30 Bitumen
Date of Reciept of Sample	:27-4-2023
Date of testing	:27-4-2023

TEST RESULTS

The results of the tests conducted on the bitumen sample using for Dense Bituminous Macadam

Sl.No	Description	Test Result	Requirement as per IS:73:2013
1	Penetration at 25 ^{0}C, 1/10 mm	59	Min 45
2	Softening point, ^{0}C	47	Min. 47
3	Ductility at 27^{0}C, cm	> 100	Min. 40
4	Flash Point, ^{0}C	363	Min. 220

Notes:-

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TEST REPORT ON FLAKINESS & ELONGATION

Date. :15-3-2023
Client Name : Executive Engineer, Bytarayanapura Division,No 2152/20,Defence Colony,Sahakara Nagara,Bangalore-92
***Contractor Name** : M/s Sri A G Narayanaswamy, no 13 Venkateshwara Layout, Horamavu, Bengaluru-560043
Project Name : Improvements to Roads and Drains at MCEHS Layout 1st and 2nd Phase, Sampigehalli, Chokkanahalli, Balaji Krupa Layout, Basavalingappa Nagara, Central Excise Layout, Bellahalli and Kattigenahalli in Ward no 05 and Kaveri Nagara and Shiridi Sai Nagara in Ward no: 06 Bytarayanapura Sub Division
Letter Reference :BBMP/EE/BTP/WO/80/2022-23, Dated:22-12-2022
PMC Name : Shiprama Consulting Engineers
Technical Reference : IS:2386(part 1)-1963 RA 2016, MORTH Table 400-13
Material description : Dense graded Bituminous Macadam
Date of Reciept of Sample :15-3-2023
Date of testing :15-3-2023

TEST RESULTS

Sl. No.	Particulars	Test Results	Standards as per Specifications As per MORTH Table 400-13
1	Flakiness Index	16.50%	Maximum allowable Flakiness & Elongat Dense graded Bituminous Macadam is 35%
2	Elongation Index	11.30%	
	Combined Flakiness & Elongation	**27.80%**	

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SHIPRAMA CONSULTING ENGINEERS PRIVATE LIMITED
(MECHANICAL TESTING LABORATORY DIVISION)
ISO 9001:2015 Certified Company

TEST REPORT ON FLAKINESS & ELONGATION

Date.	:27-4-2023
Client Name	: Executive Engineer, Bytarayanapura Division,No 2152/20,Defence Colony,Sahakara Nagara,Bangalore-92
***Contractor Name**	: M/s Sri A G Narayanaswamy, no 13 Venkateshwara Layout, Horamavu, Bengaluru-560043
Project Name	: Improvements to Roads and Drains at MCEHS Layout 1st and 2nd Phase, Sampigehalli, Chokkanahalli, Balaji Krupa Layout, Basavalingappa Nagara, Central Excise Layout, Bellahalli and Kattigenahalli in Ward no 05 and Kaveri Nagara and Shiridi Sai Nagara in Ward no: 06 Bytarayanapura Sub Division
Letter Reference	:BBMP/EE/BTP/WO/80/2022-23, Dated:22-12-2022
PMC Name	: Shiprama Consulting Engineers
Technical Reference	: IS:2386(part 1)-1963 RA 2016, MORTH Table 400-13
Material description	: Dense graded Bituminous Macadam
Date of Reciept of Sample	:27-4-2023
Date of testing	:27-4-2023

TEST RESULTS

Sl. No.	Particulars	Test Results	Standards as per Specifications As per MORTH Table 400-13
1	Flakiness Index	17.00%	Maximum allowable Flakiness & Elongat Dense graded Bituminous Macadam is 35%
2	Elongation Index	11.10%	
	Combined Flakiness & Elongation	**28.10%**	

Notes:-

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1048, 8th Block Extension ,Gangubai Hangal Road, Sir M. Vishveshwaraiah Layout, Near Gidadakonenahalli
Bengaluru-560091.Mob:9886212878 Ph.: 080 29554444 | Email: shiprama888@gmail.com |

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TEST REPORT ON SPECIFIC GRAVITY AND WATER ABSORPTION

Date. :15-3-2023

Client Name : Executive Engineer, Bytarayanapura Division,No 2152/20,Defence Colony,Sahakara Nagara,Bangalore-92

***Contractor Name** : M/s Sri A G Narayanaswamy, no 13 Venkateshwara Layout, Horamavu, Bengaluru-560043

Project Name : Improvements to Roads and Drains at MCEHS Layout 1st and 2nd Phase, Sampigehalli, Chokkanahalli, Balaji Krupa Layout, Basavalingappa Nagara, Central Excise Layout, Bellahalli and Kattigenahalli in Ward no 05 and Kaveri Nagara and Shiridi Sai Nagara

Letter Reference :BBMP/EE/BTP/WO/80/2022-23, Dated:22-12-2022

PMC Name : Shiprama Consulting Engineers

Technical Reference : IS 2386 (Part-4)- 1963 RA 2016, MORTH Table 500-10

Material description : Dense Graded Bituminous Macadam

Date of Reciept of Sample :15-3-2023

Date of testing :15-3-2023

TEST RESULTS

Total Wt. of Sample = 2000 gms

Sl. No.	Description	Notation	Test Result	
			Trail 1	Trail 2
1	Weight of Aggregate Suspended in water with the Basket (in gms)	A1	3721.0	3721.5
2	Weight of Empty Basket suspended in Water (in gms)	A2	2475.0	2475.0
3	Weight of Saturarted aggregate in water (in gms) = (A1-A2)	A	1246.0	1246.5
4	Weight of saturated surface dry aggregate in air (in gms)	B	2008	2007
5	Weight of oven dry Aggregate (in gms)	C	1996.0	1998.0

Result : 1. Specific gravity = (C/B-A) — 2.62 — 2.63

2. Water Absorption in Percentage = (B-C*100/C) — 0.60 — 0.45

Remarks: Maximum allowable Aggregate Water absorption value for Dense Graded Bituminous Macadam is 2.0%

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TEST REPORT ON SPECIFIC GRAVITY AND WATER ABSORPTION

Date. :27-4-2023

Client Name : Executive Engineer, Bytarayanapura Division,No 2152/20,Defence Colony,Sahakara Nagara,Bangalore-92

***Contractor Name** : M/s Sri A G Narayanaswamy, no 13 Venkateshwara Layout, Horamavu, Bengaluru-560043

Project Name : Improvements to Roads and Drains at MCEHS Layout 1st and 2nd Phase, Sampigehalli, Chokkanahalli, Balaji Krupa Layout, Basavalingappa Nagara, Central Excise Layout, Bellahalli and Kattigenahalli in Ward no 05 and Kaveri Nagara and Shiridi Sai Nagara

Letter Reference :BBMP/EE/BTP/WO/80/2022-23, Dated:22-12-2022

PMC Name : Shiprama Consulting Engineers

Technical Reference : IS 2386 (Part-4)- 1963 RA 2016, MORTH Table 500-10

Material description : Dense Graded Bituminous Macadam

Date of Reciept of Sample :27-4-2023

Date of testing :27-4-2023

TEST RESULTS

Total Wt. of Sample = 2000 gms

Sl. No.	Description	Notation	Test Result	
			Trail 1	Trail 2
1	Weight of Aggregate Suspended in water with the Basket (in gms)	A1	3723.0	3721.0
2	Weight of Empty Basket suspended in Water (in gms)	A2	2475.0	2473.0
3	Weight of Saturarted aggregate in water (in gms) = (A1-A2)	A	1248.0	1248.0
4	Weight of saturated surface dry aggregate in air (in gms)	B	2008	2009
5	Weight of oven dry Aggregate (in gms)	C	1996.5	1998.0

Result :	1. Specific gravity = (C/B-A)	2.63	2.63
	2. Water Absorption in Percentage = (B-C*100/C)	0.58	0.55

Remarks: Maximum allowable Aggregate Water absorption value for Dense Graded Bituminous Macadam is 2.0%

Notes:-

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TEST REPORT ON STABILITY OF MIX

Date. :15-3-2023

Client Name : Executive Engineer, Bytarayanapura Division,No 2152/20,Defence Colony,Sahakara Nagara,Bangalore-92

***Contractor Name** : M/s Sri A G Narayanaswamy, no 13 Venkateshwara Layout, Horamavu, Bengaluru-560043

Project Name : Improvements to Roads and Drains at MCEHS Layout 1st and 2nd Phase, Sampigehalli, Chokkanahalli, Balaji Krupa Layout, Basavalingappa Nagara, Central Excise Layout, Bellahalli and Kattigenahalli in Ward no 05 and

Letter Reference :BBMP/EE/BTP/WO/80/2022-23, Dated:22-12-2022

PMC Name : Shiprama Consulting Engineers

Technical Reference : MORTH Table 500-11

Material description : Dense Graded Bituminous Macadam

Date of Reciept of Sample :15-3-2023

Date of testing :15-3-2023

TEST RESULTS

Sl.No	Description	Test Result		Requirement as per MORTH (Table 500-11)
		Trail 1	Trail 2	
1	Marshal Stability, Kn	9.99	9.85	9 Kn (min)
2	Marshal flow, mm	2.60	2.71	2 – 4
3	Percent air voids in Mix	3.61	3.83	3 – 5
4	Percent voids in mineral aggregates	11.72	11.63	10-12
5	Percent voids filled with Bitumen	70.10	70.24	65 – 75
6	Density, g/cc	2.25	2.25	-

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TEST REPORT ON STABILITY OF MIX

Date.	:27-4-2023
Client Name	: Executive Engineer, Bytarayanapura Division,No 2152/20,Defence Colony,Sahakara Nagara,Bangalore-92
***Contractor Name**	: M/s Sri A G Narayanaswamy, no 13 Venkateshwara Layout, Horamavu, Bengaluru-560043
Project Name	: Improvements to Roads and Drains at MCEHS Layout 1st and 2nd Phase, Sampigehalli, Chokkanahalli, Balaji Krupa Layout, Basavalingappa Nagara, Central Excise Layout, Bellahalli and Kattigenahalli in Ward no 05 and Kaveri Nagara and Shiridi Sai Nagara in Ward no: 06 Bytarayanapura Sub
Letter Reference	:BBMP/EE/BTP/WO/80/2022-23, Dated:22-12-2022
PMC Name	: Shiprama Consulting Engineers
Technical Reference	: MORTH Table 500-11
Material description	: Dense Graded Bituminous Macadam
Date of Reciept of Sample	:27-4-2023
Date of testing	:27-4-2023

TEST RESULTS

Sl.No	Description	Test Result		Requirement as per MORTH (Table 500-11)
		Trail 1	Trail 2	
1	Marshal Stability, Kn	9.69	9.72	9 Kn (min)
2	Marshal flow, mm	2.64	2.74	2 – 4
3	Percent air voids in Mix	3.6	3.85	3 – 5
4	Percent voids in mineral aggregates	11.69	11.55	10-12
5	Percent voids filled with Bitumen	70.10	70.4	65 – 75
6	Density, g/cc	2.22	2.24	-

Notes:-

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TEST REPORT ON BITUMEN CONTENT AND GRADATION FOR BITUMINOUS CONCRETE

Date.	:16-3-2023
Client Name	: Executive Engineer, Bytarayanapura Division,No 2152/20,Defence Colony,Shankara Nagara,Bangalore-92
***Contractor Name**	: M/s Sri A G Narayanaswamy, no 13 Venkateshwara Layout, Horamavu, Bengaluru-560043
Project Name	: Improvements to Roads and Drains at MCEHS Layout 1st and 2nd Phase, Sampigehalli, Chokkanahalli, Balaji Krupa Layout, Basavalingappa Nagara, Central Excise Layout, Bellahalli and Kattigenahalli in Ward no 05 and Kaveri Nagara and Shiridi Sai Nagara in Ward no: 06 Bytarayanapura Sub Division.
Letter Reference	:BBMP/EE/BTP/WO/80/2022-23, Dated:22-12-2022
PMC Name	: Shiprama Consulting Engineers
Technical Reference	: IS 2720 (Part-4)- 1985 RA 2015, AASHTO T 164 & AASHTO T 30 & MORTH
Location	:Shiradi Sai Nagar 3rd Cross
Material description	: Bituminous Concrete
Sample	:16-3-2023
Date of testing	:16-3-2023

BITUMEN CONTENT

Description	Trail 1	Trail 2
1. Weight of Mixture before Test, g	500	500
2. Weight of Mixture after Test, g	469	471.5
3. Weight of Asphalt and Mineral matter Extracted, g	-	-
4. Weight of Mineral Matter, g.	-	-
5. Weight of Ash, g		
6. Weight of Bitumen Extracted, g. (corrected)	31.00	28.50
7. Bitumen content in %	6.20	5.70
8. Average	**5.95**	

Total Wt. of Aggregates in gms 469

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ಸಹಾಯಕ ಕಾರ್ಯನಿರ್ವಾಹಕ ಅಭಿಯಂತರರ
ಬ್ಯಾಟರಾಯನಪುರ ಉಪ ವಿಭಾಗ
ಬಿ.ಬಿ.ಎಂ.ಪಿ, ಬೆಂಗಳೂರು-26

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Sieve Size in mm	Weight retained (gms)	Cumulative weight retained (gms)	Percentage Cumulative weight retained (%)	Percentage Passing (%)	Specified Limits as per MORTH Table 500-17
19	0	0	0	100	100
13.2	30.6	30.6	6.52	93.48	90- 100
9.5	65.4	96	20.47	79.53	70 - 88
4.75	92.6	188.6	40.21	59.79	53 - 71
2.36	81.5	270.1	57.59	42.41	42 - 58
1.18	37.7	307.8	65.63	34.37	34 - 48
0.6	27.9	335.7	71.58	28.42	26 - 38
0.3	41.1	376.8	80.34	19.66	18 - 28
0.15	27.5	404.3	86.20	13.80	12 - 20
0.075	35.5	439.8	93.77	6.23	4 - 10
Total Wt. of Aggregates in gms		471.5			

Sieve Size in mm	Weight retained (gms)	Cumulative weight retained (gms)	Percentage Cumulative weight retained (%)	Percentage Passing (%)	Specified Limits as per MORTH Table 500-17
19	0	0	0	100	100
13.2	32.5	32.5	6.89	93.11	90- 100
9.5	46.6	79.1	16.78	83.22	70 - 88
4.75	85.7	164.8	34.95	65.05	53 - 71
2.36	72.6	237.4	50.35	49.65	42 - 58
1.18	67.6	305	64.69	35.31	34 - 48
0.6	35.1	340.1	72.13	27.87	26 - 38
0.3	34.5	374.6	79.45	20.55	18 - 28
0.15	30.6	405.2	85.94	14.06	12 - 20
0.075	36.7	441.9	93.72	6.28	4 - 10

Notes:-

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TEST REPORT ON BITUMEN CONTENT AND GRADATION FOR BITUMINOUS CONCRETE

Date.	:28-4-2023
Client Name	: Executive Engineer, Bytarayanapura Division,No 2152/20,Defence Colony,Shankara Nagara,Bangalore-92
***Contractor Name**	: M/s Sri A G Narayanaswamy, no 13 Venkateshwara Layout, Horamavu, Bengaluru-560043
Project Name	: Improvements to Roads and Drains at MCEHS Layout 1st and 2nd Phase, Sampigehalli, Chokkanahalli, Balaji Krupa Layout, Basavalingappa Nagara, Central Excise Layout, Bellahalli and Kattigenahalli in Ward no 05 and Kaveri Nagara and Shiridi Sai Nagara in Ward no: 06 Bytarayanapura Sub Division.
Letter Reference	:BBMP/EE/BTP/WO/80/2022-23, Dated:22-12-2022
PMC Name	: Shiprama Consulting Engineers
Technical Reference	: IS 2720 (Part-4)- 1985 RA 2015, AASHTO T 164 & AASHTO T 30 & MORTH
Location	:Hegde Nagar 8th Cross
Material description	: Bituminous Concrete
Sample	:28-4-2023
Date of testing	:28-4-2023

TEST RESULTS

BITUMEN CONTENT

Description	Trail 1	Trail 2
1. Weight of Mixture before Test, g	500	500
2. Weight of Mixture after Test, g	471.5	470
3. Weight of Asphalt and Mineral matter Extracted, g	-	-
4. Weight of Mineral Matter, g.	-	-
5. Weight of Ash, g		
6. Weight of Bitumen Extracted, g. (corrected)	28.50	30.00
7. Bitumen content in %	5.70	6.00
8. Average	**5.85**	

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ಬಿ.ಬಿ.ಎಂ.ಪಿ. ಬ್ಯಾಟರಾಯನಪುರ ಉಪ ವಿಭಾಗ

ಸಹಾಯಕ ಕಾರ್ಯಪಾಲಕ ಅಧಿಯಂತರರು
ಬ್ಯಾಟರಾಯನಪುರ ಉಪ ವಿಭಾಗ
ಬಿ.ಬಿ.ಎಂ.ಪಿ, ಬೆಂಗಳೂರು-26

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Total Wt. of Aggregates in gms 471.5

Sieve Size in mm	Weight retained (gms)	Cumulative weight retained (gms)	Percentage Cumulative weight retained (%)	Percentage Passing (%)	Specified Limits as per MORTH Table 500-17
19	0	0	0	100	100
13.2	30.6	30.6	6.49	93.51	90- 100
9.5	65.1	95.7	20.30	79.70	70 - 88
4.75	83.5	179.2	38.01	61.99	53 - 71
2.36	58.3	237.5	50.37	49.63	42 - 58
1.18	43.1	280.6	59.51	40.49	34 - 48
0.6	26.5	307.1	65.13	34.87	26 - 38
0.3	49.7	356.8	75.67	24.33	18 - 28
0.15	36.2	393	83.35	16.65	12 - 20
0.075	44.2	437.2	92.73	7.27	4 - 10

Total Wt. of Aggregates in gms 470

Sieve Size in mm	Weight retained (gms)	Cumulative weight retained (gms)	Percentage Cumulative weight retained (%)	Percentage Passing (%)	Specified Limits as per MORTH Table 500-17
19	0	0	0	100	100
13.2	32.2	32.2	6.85	93.15	90- 100
9.5	45.5	77.7	16.53	83.47	70 - 88
4.75	86.5	164.2	34.94	65.06	53 - 71
2.36	65.4	229.6	48.85	51.15	42 - 58
1.18	79.6	309.2	65.79	34.21	34 - 48
0.6	28.6	337.8	71.87	28.13	26 - 38
0.3	35.3	373.1	79.38	20.62	18 - 28
0.15	23.8	396.9	84.45	15.55	12 - 20
0.075	55.3	452.2	96.21	3.79	4 - 10

Notes:-

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(MECHANICAL TESTING LABORATORY DIVISION)
ISO 9001:2015 Certified Company

TEST REPORT ON GRADATION

Date. :15-3-2023

Client Name : Executive Engineer, Bytarayanapura Division,No 2152/20,Defence Colony,Shankara Nagara,Bangalore-92

***Contractor Name** : M/s Sri A G Narayanaswamy, no 13 Venkateshwara Layout, Horamavu, Bengaluru-560043

Project Name : Improvements to Roads and Drains at MCEHS Layout 1st and 2nd Phase, Sampigehalli, Chokkanahalli, Balaji Krupa Layout, Basavalingappa Nagara, Central Excise Layout, Bellahalli and Kattigenahalli in Ward no 05 and Kaveri Nagara and Shiridi Sai Nagara in Ward no: 06 Bytarayanapura Sub Division.

Letter Reference :BBMP/EE/BTP/WO/80/2022-23, Dated:22-12-2022

PMC Name : Shiprama Consulting Engineers

Technical Reference : IS 2720 (Part-4)- 1985 RA 2020, MORTH Table 500-17

Material description : Bituminous Concrete

Date of Reciept of Sample :15-3-2023

Date of testing :15-3-2023

TEST RESULTS

Total Wt. of Aggregates in gms 5100

Sieve Size in mm	Weight retained (gms)	Cumulative weight retained (gms)	Percentage Cumulative weight retained (%)	Percentage Passing (%)	Specified Limits as per MORTH Table 500-17
19	0	0	0	100	100
13.2	210	210	4.12	95.88	90- 100
9.5	719	929	18.22	81.78	70 - 88
4.75	850	1779	34.88	65.12	53 - 71
2.36	421	2200	43.14	56.86	42 - 58
1.18	526	2726	53.45	46.55	34 - 48
0.6	545	3271	64.14	35.86	26 - 38
0.3	440	3711	72.76	27.24	18 - 28
0.15	480	4191	82.18	17.82	12 - 20
0.075	450	4641	91.00	9.00	4 - 10

Remarks: The above tested sample satisfies MORTH Specifications as per Table 500-17

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1048, 8th Block Extension ,Gangubai Hangal Road, Sir M. Vishveshwaraiah Layout, Near Gidadakonenahalli
Bengaluru-560091.Mob:9886212878 Ph.: 080 29554444 | Email: shiprama888@gmail.com |

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TEST REPORT ON GRADATION

Date.	:27-4-2023
Client Name	: Executive Engineer, Bytarayanapura Division,No 2152/20,Defence Colony,Shankara Nagara,Bangalore-92
***Contractor Name**	: M/s Sri A G Narayanaswamy, no 13 Venkateshwara Layout, Horamavu, Bengaluru-560043
Project Name	: Improvements to Roads and Drains at MCEHS Layout 1st and 2nd Phase, Sampigehalli, Chokkanahalli, Balaji Krupa Layout, Basavalingappa Nagara, Central Excise Layout, Bellahalli and Kattigenahalli in Ward no 05 and Kaveri Nagara and Shiridi Sai Nagara in Ward no: 06 Bytarayanapura Sub Division.
Letter Reference	:BBMP/EE/BTP/WO/80/2022-23, Dated:22-12-2022
PMC Name	: Shiprama Consulting Engineers
Technical Reference	: IS 2720 (Part-4)- 1985 RA 2020, MORTH Table 500-17
Material description	: Bituminous Concrete
Date of Reciept of Sample	:27-4-2023
Date of testing	:27-4-2023

TEST RESULTS

Total Wt. of Aggregates in gms 5100

Sieve Size in mm	Weight retained (gms)	Cumulative weight retained (gms)	Percentage Cumulative weight retained (%)	Percentage Passing (%)	Specified Limits as per MORTH Table 500-17
19	0	0	0	100	100
13.2	205	205	4.02	95.98	90- 100
9.5	725	930	18.24	81.76	70 - 88
4.75	845	1775	34.80	65.20	53 - 71
2.36	422	2197	43.08	56.92	42 - 58
1.18	525	2722	53.37	46.63	34 - 48
0.6	545	3267	64.06	35.94	26 - 38
0.3	460	3727	73.08	26.92	18 - 28
0.15	470	4197	82.29	17.71	12 - 20
0.075	451	4648	91.14	8.86	4 - 10

Remarks: The above tested sample satisfies MORTH Specifications as per Table 500-17

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TEST REPORT ON AGGREGATE IMPACT VALUE

Date.	:15-3-2023
Client Name	: Executive Engineer, Bytarayanapura Division,No 2152/20,Defence
***Contractor Name**	: M/s Sri A G Narayanaswamy, no 13 Venkateshwara Layout, Horamavu, Bengaluru-560043
Project Name	: Improvements to Roads and Drains at MCEHS Layout 1st and 2nd Phase, Sampigehalli, Chokkanahalli, Balaji Krupa Layout, Basavalingappa Nagara, Central Excise Layout, Bellahalli and Kattigenahalli in Ward no 05 and Kaveri Nagara and Shiridi Sai Nagara in Ward no: 06 Bytarayanapura Sub
Letter Reference	:BBMP/EE/BTP/WO/80/2022-23, Dated:22-12-2022
PMC Name	: Shiprama Consulting Engineers
Technical Reference	: IS 2386 (Part-4)- 1963 RA 2020, MORTH Table 500-17
Material description	: Bituminous Concrete
Date of Reciept of	:15-3-2023
Date of testing	:15-3-2023

TEST RESULTS

Sl No.	Details	Trial No.			Average
		1	2	3	
1	Total weight of aggregate sample filling the cylindrical measure = W_1 g	375	376	377	
2	Weight of aggregate passing 2.36 mm sieve after the test = W_2 g	80	82	83	
3	Weight of aggregate retained 2.36 mm sieve after the test = W_3 g	295	294	294	
4	Aggregate Impact value = percent fines	21.33	21.81	22.02	
	100* (W_2/W_1)%				**21.72**

Remarks: Maximum allowable Aggregate Impact value for Bituminous Concrete is 24%

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TEST REPORT ON AGGREGATE IMPACT VALUE

Date.	:27-4-2023
Client Name	: Executive Engineer, Bytarayanapura Division,No 2152/20,Defence Colony,Shankara Nagara,Bangalore-92
***Contractor Name**	: M/s Sri A G Narayanaswamy, no 13 Venkateshwara Layout, Horamavu, Bengaluru-560043
Project Name	: Improvements to Roads and Drains at MCEHS Layout 1st and 2nd Phase, Sampigehalli, Chokkanahalli, Balaji Krupa Layout, Basavalingappa Nagara, Central Excise Layout, Bellahalli and Kattigenahalli in Ward no 05 and Kaveri Nagara and Shiridi Sai Nagara in Ward no: 06 Bytarayanapura Sub
Letter Reference	:BBMP/EE/BTP/WO/80/2022-23, Dated:22-12-2022
PMC Name	: Shiprama Consulting Engineers
Technical Reference	: IS 2386 (Part-4)- 1963 RA 2020, MORTH Table 500-17
Material description	: Bituminous Concrete
Date of Reciept of	:27-4-2023
Date of testing	:27-4-2023

TEST RESULTS

Sl No.	Details	Trial No.			Average
		1	2	3	
1	Total weight of aggregate sample filling the cylindrical measure = W_1 g	372	374	375	
2	Weight of agregate passing 2.36 mm sieve after the test = W_2 g	82	81	80	
3	Weight of aggregate retained 2.36 mm sieve after the test = W_3 g	290	293	295	
4	Aggregate Impact value = percent fines	22.04	21.66	21.33	
	100* (W_2/W_1)%				**21.68**

Remarks: Maximum allowable Aggregate Impact value for Bituminous Concrete is 24%

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TEST REPORT ON BITUMEN

Date.	:15-3-2023
Client Name	: Executive Engineer, Bytarayanapura Division,No 2152/20,Defence Colony,Shankara Nagara,Bangalore-92
***Contractor Name**	: M/s Sri A G Narayanaswamy, no 13 Venkateshwara Layout, Horamavu, Bengaluru-560043
Project Name	: Improvements to Roads and Drains at MCEHS Layout 1st and 2nd Phase, Sampigehalli, Chokkanahalli, Balaji Krupa Layout, Basavalingappa Nagara, Central Excise Layout, Bellahalli and Kattigenahalli in Ward no 05 and Kaveri Nagara and Shiridi Sai Nagara in Ward no: 06 Bytarayanapura Sub
Letter Reference	:BBMP/EE/BTP/WO/80/2022-23, Dated:22-12-2022
PMC Name	: Shiprama Consulting Engineers
Technical Reference	: IS 73 -2013
Material description	: VG 30 Bitumen
Date of Reciept of Sample	:15-3-2023
Date of testing	:15-3-2023

TEST RESULTS

The results of the tests conducted on the bitumen sample using for Bituminous Concrete

Sl.No	Description	Test Result	Requirement as per IS:73:2013
1	Penetration at 25 ^{0}C, 1/10 mm	58	Min 45
2	Softening point, ^{0}C	47	Min. 47
3	Ductility at 27^{0}C, cm	> 100	Min. 40
4	Flash Point, ^{0}C	363	Min. 220

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TEST REPORT ON BITUMEN

Date.	:27-4-2023
Client Name	: Executive Engineer, Bytarayanapura Division,No 2152/20,Defence Colony,Shankara Nagara,Bangalore-92
***Contractor Name**	: M/s Sri Venkateshwara Constructions, Prop.Sri Sambashiva, No.28/A, 1st Main, Bullet Krishnappa Layout,Thindlu, Vidyaranyapura,Bengaluru-560097
Project Name	: Improvements to Roads and Drains at Hegadenagara Eastern Side Balance Cross Roads in Ward no: 06 Bytarayanapura Sub Division.
Letter Reference	:BBMP/EE/BTP/WO/80/2022-23, Dated:22-12-2022
PMC Name	: Shiprama Consulting Engineers
Technical Reference	: IS 73 -2013
Material description	: VG 30 Bitumen
Date of Reciept of Sample	:27-4-2023
Date of testing	:27-4-2023

TEST RESULTS

The results of the tests conducted on the bitumen sample using for Bituminous Concrete

Sl.No	Description	Test Result	Requirement as per IS:73:2013
1	Penetration at 25 ^{0}C, 1/10 mm	59	Min 45
2	Softening point, ^{0}C	48	Min. 47
3	Ductility at 27^{0}C, cm	> 100	Min. 40
4	Flash Point, ^{0}C	362	Min. 220

Notes:-

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TEST REPORT ON FLAKINESS & ELONGATION

Date.	:15-3-2023
Client Name	: Executive Engineer, Bytarayanapura Division,No 2152/20,Defence Colony,Shankara Nagara,Bangalore-92
***Contractor Name**	: M/s Sri A G Narayanaswamy, no 13 Venkateshwara Layout, Hor Bengaluru-560043
Project Name	: Improvements to Roads and Drains at MCEHS Layout 1st and 2nd Sampigehalli, Chokkanahalli, Balaji Krupa Layout, Basavalingappa Central Excise Layout, Bellahalli and Kattigenahalli in Ward no 05 Kaveri Nagara and Shiridi Sai Nagara in Ward no: 06 Bytarayanap Division.
Letter Reference	:BBMP/EE/BTP/WO/80/2022-23, Dated:22-12-2022
PMC Name	: Shiprama Consulting Engineers
Technical Reference	: IS:2386(part 1)-1963 RA 2016, MORTH Table 500-17
Material description	: Bituminous Concrete
Date of Reciept of Sample	:15-3-2023
Date of testing	:15-3-2023

TEST RESULTS

Sl. No.	Particulars	Test Results	Standards as per Specifications As per MORTH Table 500-17
1	Flakiness Index	16.50%	Maximum allowable Flakiness & Elongation Index for Bituminous Concrete is 30%
2	Elongation Index	11.55%	
	Combined Flakiness & Elongation	**28.05%**	

Remarks: The above tested sample satisfies MORTH Specifications as per Table 500-17

Notes:-

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(MECHANICAL TESTING LABORATORY DIVISION)
ISO 9001:2015 Certified Company

TEST REPORT ON FLAKINESS & ELONGATION

Date.	:27-4-2023
Client Name	: Executive Engineer, Bytarayanapura Division,No 2152/20,Defence Colony,Shankara Nagara,Bangalore-92
***Contractor Name**	: M/s Sri A G Narayanaswamy, no 13 Venkateshwara Layout, Hor Bengaluru-560043
Project Name	: Improvements to Roads and Drains at MCEHS Layout 1st and 2nd Sampigehalli, Chokkanahalli, Balaji Krupa Layout, Basavalingappa Central Excise Layout, Bellahalli and Kattigenahalli in Ward no 05 Kaveri Nagara and Shiridi Sai Nagara in Ward no: 06 Bytarayanap
Letter Reference	:BBMP/EE/BTP/WO/80/2022-23, Dated:22-12-2022
PMC Name	: Shiprama Consulting Engineers
Technical Reference	: IS:2386(part 1)-1963 RA 2016, MORTH Table 500-17
Material description	: Bituminous Concrete
Date of Reciept of Sample	:27-4-2023
Date of testing	:27-4-2023

TEST RESULTS

Sl. No.	Particulars	Test Results	Standards as per Specifications As per MORTH Table 500-17
1	Flakiness Index	15.90%	Maximum allowable Flakiness & Elongation Index for Bituminous Concrete is 30%
2	Elongation Index	11.45%	
	Combined Flakiness & Elongation	**27.35%**	

Remarks: The above tested sample satisfies MORTH Specifications as per Table 500-17

Notes:-

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1048, 8th Block Extension ,Gangubai Hangal Road, Sir M. Vishveshwaraiah Layout, Near Gidadakonenahalli
Bengaluru-560091.Mob:9886212878 Ph.: 080 29554444 | Email: shiprama888@gmail.com |

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TEST REPORT ON SPECIFIC GRAVITY AND WATER ABSORPTION

Date. :15-3-2023
Client Name : Executive Engineer, Bytarayanapura Division,No 2152/20,Defence Colony,Sahakara Nagara,Bangalore-92
***Contractor Name** :M/s Sri A G Narayanaswamy, no 13 Venkateshwara Layout, Horamavu, Bengaluru-560043Vidyaranyapura,Bengaluru-560097
Project Name : Improvements to Roads and Drains at MCEHS Layout 1st and 2nd Phase, Sampigehalli, Chokkanahalli, Balaji Krupa Layout, Basavalingappa Nagara, Central Excise Layout, Bellahalli and Kattigenahalli in Ward no 05 and Kaveri Nagara and Shiridi Sai Nagara
Letter Reference :BBMP/EE/BTP/WO/80/2022-23, Dated:22-12-2022
PMC Name : Shiprama Consulting Engineers
Technical Reference : IS 2386 (Part-4)- 1963 RA 2016, MORTH Table 500-17
Material description : Bituminous Concrete
Date of Reciept of Sample :15-3-2023
Date of testing :15-3-2023

TEST RESULTS

Total Wt. of Sample = 2000 gms

Sl. No.	Description	Notation	Test Result	
			Trail 1	Trail 2
1	Weight of Aggregate Suspended in water with the Basket (in gms)	A1	3736.0	3736.0
2	Weight of Empty Basket suspended in Water (in gms)	A2	2455.0	2462.0
3	Weight of Saturarted aggregate in water (in gms) = (A1-A2)	A	1281.0	1274.0
4	Weight of saturated surface dry aggregate in air (in gms)	B	2008	2007
5	Weight of oven dry Aggregate (in gms)	C	1996.0	1996.5

Result :			
	1. Specific gravity = (C/B-A)	2.75	2.72
	2. Water Absorption in Percentage = (B-C*100/C)	0.60	0.53

Remarks: Maximum allowable Aggregate Water absorption value for Bituminous Concrete is 2.0%

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TEST REPORT ON SPECIFIC GRAVITY AND WATER ABSORPTION

Date. :27-4-2023
Client Name : Executive Engineer, Bytarayanapura Division,No 2152/20,Defence Colony,Sahakara Nagara,Bangalore-92
***Contractor Name** :M/s Sri A G Narayanaswamy, no 13 Venkateshwara Layout, Horamavu, Bengaluru-560043Vidyaranyapura,Bengaluru-560097
Project Name : Improvements to Roads and Drains at MCEHS Layout 1st and 2nd Phase, Sampigehalli, Chokkanahalli, Balaji Krupa Layout, Basavalingappa Nagara, Central Excise Layout, Bellahalli and Kattigenahalli in Ward no 05 and Kaveri Nagara and Shiridi Sai Nagara
Letter Reference :BBMP/EE/BTP/WO/80/2022-23, Dated:22-12-2022
PMC Name : Shiprama Consulting Engineers
Technical Reference : IS 2386 (Part-4)- 1963 RA 2016, MORTH Table 500-17
Material description : Bituminous Concrete
Date of Reciept of Sample :27-4-2023
Date of testing :27-4-2023

TEST RESULTS

Total Wt. of Sample = 2000 gms

Sl. No.	Description	Notation	Test Result	
			Trail 1	Trail 2
1	Weight of Aggregate Suspended in water with the Basket (in gms)	A1	3737.0	3737.0
2	Weight of Empty Basket suspended in Water (in gms)	A2	2467.0	2465.0
3	Weight of Saturarted aggregate in water (in gms) = (A1-A2)	A	1270.0	1272.0
4	Weight of saturated surface dry aggregate in air (in gms)	B	2007	2009
5	Weight of oven dry Aggregate (in gms)	C	1996.5	1997.0

Result : 1. Specific gravity = (C/B-A) — 2.71 — 2.71
2. Water Absorption in Percentage = (B-C*100/C) — 0.53 — 0.60

Remarks: Maximum allowable Aggregate Water absorption value for Bituminous Concrete is 2.0%

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ಬಿ.ಬಿ.ಎಂ.ಪಿ ಬ್ಯಾಟರಾಯನಪುರ ಉಪ ವಿಭಾಗ
ಸಹಾಯಕ ಕಾರ್ಯಪಾಲಕ ಅಭಿಯಂತರರು
ಬ್ಯಾಟರಾಯನಪುರ ಉಪ ವಿಭಾಗ
ಬಿ.ಬಿ.ಎಂ.ಪಿ, ಬೆಂಗಳೂರು-26

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SHIPRAMA CONSULTING ENGINEERS PRIVATE LIMITED
(MECHANICAL TESTING LABORATORY DIVISION)
ISO 9001:2015 Certified Company

TEST REPORT ON STABILITY OF MIX

Date.	:15-3-2023
Client Name	: Executive Engineer, Bytarayanapura Division,No 2152/20,Defence Colony,Sahakara Nagara,Bangalore-92
***Contractor Name**	: M/s Sri A G Narayanaswamy, no 13 Venkateshwara Layout, Horamavu, Bengaluru-560043
Project Name	: Improvements to Roads and Drains at MCEHS Layout 1st and 2nd Phase, Sampigehalli, Chokkanahalli, Balaji Krupa Layout, Basavalingappa Nagara, Central Excise Layout, Bellahalli and Kattigenahalli in Ward no 05 and Kaveri Nagara and Shiridi Sai Nagara in Ward no: 06 Bytarayanapura Sub
Letter Reference	:BBMP/EE/BTP/WO/80/2022-23, Dated:22-12-2022
PMC Name	: Shiprama Consulting Engineers
Technical Reference	: MORTH Table 500-17
Material description	: Bituminous Concrete
Date of Reciept of Sample	:15-3-2023
Date of testing	:15-3-2023

TEST RESULTS

Sl.No	Description	Test Result		Requirement as per MORTH
		Trail 1	Trail 2	
1	Marshal Stability, Kn	9.54	10.13	9 Kn (min)
2	Marshal flow, mm	2.62	2.51	2 – 4
3	Percent air voids in Mix	12.12	12.52	11 – 13
4	Percent voids in mineral aggregates	4.33	4.17	3 – 5
5	Percent voids filled with Bitumen	69.81	69.46	65 - 75
6	Density, g/cc	2.23	2.25	-

Notes:-

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ಬಿ.ಬಿ.ಎಂ.ಪಿ ಬೈಟರಾಯನಪುರ ಉಪ ವಿಭಾಗ

ಸಹಾಯಕ ಕಾರ್ಯಪಾಲಕ ಅಭಿಯಂತರರ
ಬೈಟರಾಯನಪುರ ಉಪ ವಿಭಾಗ
ಬಿ.ಬಿ.ಎಂ.ಪಿ : ಬೆಂಗಳೂರು-24

1048, 8th Block Extension ,Gangubai Hangal Road, Sir M. Vishveshwaraiah Layout, Near Gidadakonenahalli
Bengaluru-560091.Mob:9886212878 Ph.: 080 29554444 | Email: shiprama888@gmail.com |

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TEST REPORT ON STABILITY OF MIX

Date.	:27-4-2023
Client Name	: Executive Engineer, Bytarayanapura Division,No 2152/20,Defence Colony,Sahakara Nagara,Bangalore-92
***Contractor Name**	: M/s Sri A G Narayanaswamy, no 13 Venkateshwara Layout, Horamavu, Bengaluru-560043
Project Name	: Improvements to Roads and Drains at MCEHS Layout 1st and 2nd Phase, Sampigehalli, Chokkanahalli, Balaji Krupa Layout, Basavalingappa Nagara, Central Excise Layout, Bellahalli and Kattigenahalli in Ward no 05 and Kaveri Nagara and Shiridi Sai Nagara in Ward no: 06 Bytarayanapura Sub
Letter Reference	:BBMP/EE/BTP/WO/80/2022-23, Dated:22-12-2022
PMC Name	: Shiprama Consulting Engineers
Technical Reference	: MORTH Table 500-17
Material description	: Bituminous Concrete
Date of Reciept of Sample	:27-4-2023
Date of testing	:27-4-2023

TEST RESULTS

Sl.No	Description	Test Result		Requirement as per MORTH
		Trail 1	Trail 2	
1	Marshal Stability, Kn	9.71	10.15	9 Kn (min)
2	Marshal flow, mm	2.55	2.33	2 – 4
3	Percent air voids in Mix	12.34	12.51	11 – 13
4	Percent voids in mineral aggregates	4.11	4.33	3 – 5
5	Percent voids filled with Bitumen	68.42	69.54	65 - 75
6	Density, g/cc	2.24	2.25	-

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DETERMINATION OF RATE OF SPREAD TACK COAT

Date. :15-3-2023
Client Name : Executive Engineer, Bytarayanapura Division,No 2152/20,Defence Colony,Sahakara Nagara,Bangalore-92
***Contractor Name** : M/s Sri A G Narayanaswamy, no 13 Venkateshwara Layout, Horamavu, Bengaluru-560043
Project Name : Improvements to Roads and Drains at MCEHS Layout 1st and 2nd Phase, Sampigehalli, Chokkanahalli, Balaji Krupa Layout, Basavalingappa Nagara, Central Excise Layout, Bellahalli and Kattigenahalli in Ward no 05 and Kaveri Nagara and Shiridi Sai Nagara in Ward no: 06 Bytarayanapura Sub Division.
Letter Reference :BBMP/EE/BTP/WO/80/2022-23, Dated:22-12-2022
PMC Name : Shiprama Consulting Engineers
Location :Prashanthi Nagar
Date of testing :15-3-2023

Determination	Unit	Test No	
		1	2
Size of Plate (mxm)	mt	0.45 X 0.45	0.45 X 0.45
Area of Plate (a)	Sq.m	0.2029	0.2029
Intial Wt of empty Plate (b)	Kg	1.628	1.629
Final weight of plate after application of prime /Tack Coat (c)	Kg	1.682	1.679
Weight of Prime/Tack Coat (d=c-b)	Kg	0.0540	0.0500
Rate of spread of prime /tack coat	kg/Sq.m	0.266	0.246
Average	kg/Sq.m	0.256	
Specified Limit	kg/Sq.m	0.25 Kg/sq.m	

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DETERMINATION OF RATE OF SPREAD TACK COAT

Date. :28-4-2023
Client Name : Executive Engineer, Bytarayanapura Division,No 2152/20,Defence Colony,Sahakara Nagara,Bangalore-92
***Contractor Name** : M/s Sri A G Narayanaswamy, no 13 Venkateshwara Layout, Horamavu, Bengaluru-560043
Project Name : Improvements to Roads and Drains at MCEHS Layout 1st and 2nd Phase, Sampigehalli, Chokkanahalli, Balaji Krupa Layout, Basavalingappa Nagara, Central Excise Layout, Bellahalli and Kattigenahalli in Ward no 05 and Kaveri Nagara and Shiridi Sai Nagara in Ward no: 06 Bytarayanapura Sub Division.
Letter Reference :BBMP/EE/BTP/WO/80/2022-23, Dated:22-12-2022
PMC Name : Shiprama Consulting Engineers
Location :Hegde Nagar 8th Cross
Date of testing :28-4-2023

Determination	Unit	Test No	
		1	2
Size of Plate (mxm)	mt	0.45 X 0.45	0.45 X 0.45
Area of Plate (a)	Sq.m	0.2029	0.2029
Intial Wt of empty Plate (b)	Kg	1.629	1.630
Final weight of plate after application of prime /Tack Coat (c)	Kg	1.682	1.680
Weight of Prime/Tack Coat (d=c-b)	Kg	0.0530	0.0500
Rate of spread of prime /tack coat	kg/Sq.m	0.261	0.246
Average	kg/Sq.m	0.254	
Specified Limit	kg/Sq.m	0.25 Kg/sq.m	

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TEST REPORT ON CONCRETE CUBES

Date.	:3.2.2023
Client Name	: Executive Engineer, Bytarayanapura Division,No 2152/20,Defence Colony,Sahakara Nagara,Bangalore-92
***Contractor Name**	: M/s Sri A G Narayanaswamy, no 13 Venkateshwara Layout, Horamavu, Bengaluru-560043
Project Name	: Improvements to Roads and Drains at MCEHS Layout 1st and 2nd Phase, Sampigehalli, Chokkanahalli, Balaji Krupa Layout, Basavalingappa Nagara, Central Excise Layout, Bellahalli and Kattigenahalli in Ward no 05 and Kaveri Nagara and
Letter Reference	BBMP/EE/BTP/WO/80/2022-23, Dated:22-12-2022
PMC Name	: Shiprama Consulting Engineers
Locaction	:Kaveri Layout 4th Cross
Technical Reference	: IS 516 - 1959 RA 2018
Material description	: Cement Concrete
Age of Concrete	: 7 Days
Grade of Concrete	:M20

TEST RESULTS

Sl.No / Identification	* Date of casting	Date of testing	Weight of cube (Kg)	Failure load (KN)	Compressive strength (N/mm^2)
1	27.1.2023	3.2.2023	8.155	375.9	16.71
2	27.1.2023	3.2.2023	8.201	362.7	16.12
3	27.1.2023	3.2.2023	8.205	380.2	16.90

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ಸಹಾಯಕ ಕಾರ್ಯಪಾಲಕ ಅಭಿಯಂತರರವರ
ಬಿ.ಬಿ.ಎಂ.ಪಿ ಬ್ಯಾಟರಾಯನಪುರ ಉಪ ವಿಭಾಗ

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TEST REPORT ON CONCRETE CUBES

Date.	:3.2.2023
Client Name	: Executive Engineer, Bytarayanapura Division,No 2152/20,Defence Colony,Sahakara Nagara,Bangalore-92
***Contractor Name**	: M/s Sri A G Narayanaswamy, no 13 Venkateshwara Layout, Horamavu, Bengaluru-560043
Project Name	: Improvements to Roads and Drains at MCEHS Layout 1st and 2nd Phase, Sampigehalli, Chokkanahalli, Balaji Krupa Layout, Basavalingappa Nagara, Central Excise Layout, Bellahalli and Kattigenahalli in Ward no 05 and Kaveri Nagara and
Letter Reference	BBMP/EE/BTP/WO/80/2022-23, Dated:22-12-2022
PMC Name	: Shiprama Consulting Engineers
Locaction	:Kaveri Layout 4th Cross
Technical Reference	: IS 516 - 1959 RA 2018
Material description	: Cement Concrete
Age of Concrete	: 7 Days
Grade of Concrete	:M20

TEST RESULTS

Sl.No / Identification	* Date of casting	Date of testing	Weight of cube (Kg)	Failure load (KN)	Compressive strength (N/mm^2)
1	27.1.2023	3.2.2023	7.895	250.1	11.12
2	27.1.2023	3.2.2023	7.901	262.4	11.66
3	27.1.2023	3.2.2023	7.976	263.5	11.71

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ಬಿ.ಬಿ.ಎಂ.ಪಿ, ಬೆಂಗಳೂರು-24

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TEST REPORT ON CONCRETE CUBES

Date.	:24.2.2023
Client Name	: Executive Engineer, Bytarayanapura Division,No 2152/20,Defence Colony,Sahakara Nagara,Bangalore-92
***Contractor Name**	: M/s Sri A G Narayanaswamy, no 13 Venkateshwara Layout, Horamavu, Bengaluru-560043
Project Name	: Improvements to Roads and Drains at MCEHS Layout 1st and 2nd Phase, Sampigehalli, Chokkanahalli, Balaji Krupa Layout, Basavalingappa Nagara, Central Excise Layout, Bellahalli and Kattigenahalli in Ward no 05 and Kaveri Nagara and
Letter Reference	BBMP/EE/BTP/WO/80/2022-23, Dated:22-12-2022
PMC Name	: Shiprama Consulting Engineers
Locaction	:Kaveri Layout 4th Cross
Technical Reference	: IS 516 - 1959 RA 2018
Material description	: Cement Concrete
Age of Concrete	: 28 Days
Grade of Concrete	:M20

TEST RESULTS

Sl.No / Identification	* Date of casting	Date of testing	Weight of cube (Kg)	Failure load (KN)	Compressive strength (N/mm^2)
1	27.1.2023	24.2.2023	8.199	510.5	22.69
2	27.1.2023	24.2.2023	8.210	515.7	22.92
3	27.1.2023	24.2.2023	8.206	512.1	22.76

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TEST REPORT ON CONCRETE CUBES

Date.	:24.2.2023
Client Name	: Executive Engineer, Bytarayanapura Division,No 2152/20,Defence Colony,Sahakara Nagara,Bangalore-92
***Contractor Name**	: M/s Sri A G Narayanaswamy, no 13 Venkateshwara Layout, Horamavu, Bengaluru-560043
Project Name	: Improvements to Roads and Drains at MCEHS Layout 1st and 2nd Phase, Sampigehalli, Chokkanahalli, Balaji Krupa Layout, Basavalingappa Nagara, Central Excise Layout, Bellahalli and Kattigenahalli in Ward no 05 and Kaveri Nagara and
Letter Reference	BBMP/EE/BTP/WO/80/2022-23, Dated:22-12-2022
PMC Name	: Shiprama Consulting Engineers
Locaction	:Kaveri Layout 4th Cross
Technical Reference	: IS 516 - 1959 RA 2018
Material description	: Cement Concrete
Age of Concrete	: 28 Days
Grade of Concrete	:M20

TEST RESULTS

Sl.No / Identification	* Date of casting	Date of testing	Weight of cube (Kg)	Failure load (KN)	Compressive strength (N/mm^2)
1	27.1.2023	24.2.2023	8.159	502.5	22.33
2	27.1.2023	24.2.2023	8.196	503.8	22.39
3	27.1.2023	24.2.2023	8.200	504.9	22.44

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